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ISSUES '89

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ISSUES '89

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Welcome to *Issues '89*, NEA's second annual journal of ideas in education. We've assembled for you a collection of articles that offers a provocative glimpse into the initiatives and opinions educators will be discussing through the next 12 months—and beyond.

Inside *Issues '89*, you'll find ideas you may never before have considered, side by side with fresh examinations of concepts you may have first encountered in college and been thinking about ever since.

Just what, for instance, is the emerging movement for national teacher certification all about—and how might it affect teachers? Should teachers adapt to their students' cultural learning styles—or is there another key to teaching a variety of students? What kind of power should teachers have in making the decisions that affect learning?

These are just a few of the questions you'll find raised in the pages of *Issues '89*. If our authors offer an insight you'd like to look into, set your mind moving in new directions, even challenge you to mobilize opposing arguments—*Issues* will have served its purpose well.

Jane Power
Editor

CONTENTS

National Certification for Teachers: A Dialog 6

Gary Sykes

A National Board for Professional Teaching Standards is developing ways to assess excellence in teaching. But can we really measure quality in so complex and delicate a field of practice?

Must New Economic Vigor Mean Making Do with Less? 13

Robert B. Reich

To compete more effectively, the United States must either cut labor costs or increase labor's value. One option is cheap. The other requires a totally new approach to education.

Dinner at Abigail's: Nurturing Collaboration 20

Madeleine Grumet

Sometimes it takes going beyond school walls to understand what true education reform really means. Here's the story of one group of teachers who've learned that lesson well.

Computers in School: What's Their Real Use? 26

Richard C. Adams

Shaky software and too few machines raise the question whether computers in schools are worth the bother. But given time and training, teachers can use them to teach more effectively.

The New National Assessment: What It Can and Cannot Do 32

Daniel Koretz

Can the National Assessment of Educational Progress tell us which states have the best schools—and why? Or will using it for such comparisons destroy one of the few reliable measures of achievement we still have?

'Those' Children Are Ours: Moving Toward Community 38

Patricia Gándara

If families make the greatest difference in how children do in school, how can schools help students who might otherwise fail? Redefining schools as a *community* effort is the essential first step.

Research and Practice: We Can Integrate Them 44

Ursula Casanova

There are good reasons for the teacher-researcher split—and better ones for overcoming it. We can cross the gap in a great leap, or in a series of small, definite, significant steps.

CONTENTS

Early Help for Kids at Risk: Our Nation's Best Investment 50
Owen B. Butler
Early childhood programs can greatly increase some children's chance of eventual success. But how much would such programs cost—and who's willing to pay for them?

Bringing the Moral Back In 54
Gerald Grant
Parents have always cared about giving their children moral standards. Now consensus on the purposes of schooling has eroded. What's the school's proper role in this delicate endeavor?

Single-Parent Families: How Bad for the Children? 60
K. Alison Clarke-Stewart
Researchers know many factors that make divorce harder for children to endure—and the school can't do much about them. But teachers can help keep school from being one more problem.

Teachers and Cultural Styles in a Pluralistic Society 65
Asa G. Hilliard III
Is matching teaching styles to students' cultural learning styles the answer to low achievement among "minority" students, an excuse not to teach all students in effective ways—or both?

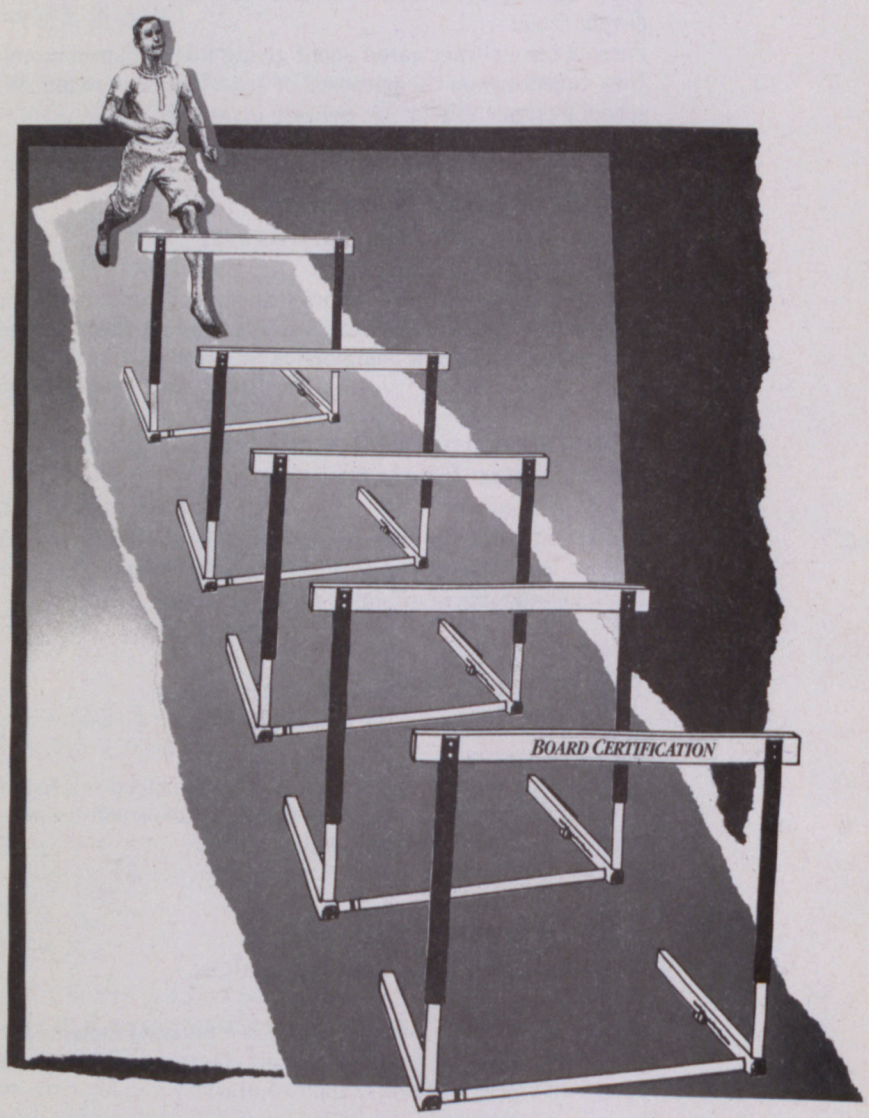
A Nation of Monolinguals, A Multilingual World 70
Sara Melendez
For both immigrants and natives, monolingualism is a handicap. It's a national debility, too—but some thorny issues stand between us and a bona fide national language policy.

The Other Certification: More Benefits Than Risks? 75
Patricia L. Graham
Is alternative certification a way to use talented individuals to broaden our teaching force—or a way to staff classrooms without real teachers? Here's how one program actually works.

National Certification for Teachers: A Dialog

BY GARY SYKES

A National Board for Professional Teaching Standards is developing ways to assess excellence in teaching. But can we really measure quality in so complex and delicate a field of practice?



Imagine it's the year 1995. You are an experienced teacher and have been hearing for some time about the prospects for national teacher certification.

Back in 1987 a new organization was created—the National Board for Professional Teaching Standards. The Board grew out of recommendations made by the Carnegie Task Force on the Teaching Profession in an influential and widely read report, *A Nation Prepared*. Its principal aim: to establish an assessment process that certifies teachers to show a high level of competence. At work for eight years now, the Board will soon invite teachers to become Board-certified.

Two-thirds of the Board's 64 members are practicing schoolteachers. Eventually, all the Board's teacher members will be elected from the body of Board-certified teachers, and the Board itself will select its nonteaching members, but the Board announced in 1987 was carefully chosen to represent the teaching profession in all its diversity.

The nonteacher members represent a range of groups with an interest in teaching: school boards, administrators, teacher educators, business lead-

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Author's note: The opinions expressed in this article are the author's alone and do not reflect positions or policies taken by the National Board for Professional Standards. The author is neither a member of nor staff to that organization and does not speak on its behalf.

ers, political leaders, university presidents. The Board is also balanced by geographical region, grade level, and subject area, school location (urban, rural, and suburban), and such personal characteristics as age, gender, and race.

The Board has been developing a new generation of assessment procedures upon which to base certification. It has also conducted a wide-ranging series of national, regional, and local forums to encourage dialog about the qualities and characteristics of good teaching and teacher education.

At first many teachers were confused about the nature of certification. The term conjured up in their minds the paper-and-pencil tests like the National Teacher Examination that states required candidates to pass in order to teach. But the Board had something entirely different in mind: a comprehensive assessment to certify teachers, not a quick test to license them. States have authority to grant *licenses* to practice in occupations affecting public health, safety, and welfare. You may not practice medicine or law, for example—or teach in a public school—without a license issued by the state.

In many professional fields, however, a separate process known as "certification" has arisen. This process, controlled by the profession itself, is voluntary. Certification typically aims at advanced or specialized competence in a field and confers benefits rather than restricts practice. For example, physicians who hold a state license to practice medicine undertake additional years of training, experience, and examination to become board-certified in one of 23 specialties. Specialty certification is a criterion for hospital privileges, access to positions, insurance rates, and other benefits. But physicians do not have to become certified in a specialty to practice medicine.

Soon after its creation in 1987, the National Board for Professional Teaching Standards began developing assessment procedures to certify teachers who choose when and whether to participate in this process. Teacher leaders hailed the move. For the first time in history, the profession itself would develop standards of excellence in teaching. From the beginning, teacher groups have seen the new Board as an opportunity to forge a national consensus on the knowledge base needed for quality teaching. The Board, teacher leaders hope, will also demonstrate to the public the teaching profession's commitment to excellence and serve as a catalyst for broader educational reforms that support teaching excellence.

But still, in 1995, many teachers around the country know little about the Board or its mission. Skepticism greets anyone who raises the subject of national certification. Tests too often have signaled public distrust of teacher competence. Teachers can't imagine how a single test could possibly take into account teaching's diversity—from Alaskan villages to L.A. barrio schools, from Chicago's South Side to Alabama's countryside. And teachers question the practical significance of certification. What would the benefits be? Recognition? Additional pay? Access to positions such as mentor or master teacher?

Certification conjured up in teachers' minds the paper and pencil tests that states required candidates to pass in order to teach.

The faculty in your school is divided on whether national certification will help or hurt, although many teachers are simply undecided. They have not studied the matter in any detail and still aren't sure how national certification might affect their lives. Since Board certification will soon be a reality, your NEA local Association has planned a meeting on the subject. After a brief presentation about national certification and the Board, Mary Hawkins, a teacher from a nearby school who currently serves on the Board, will discuss the topic with Jack Thomas, also a teacher in your district, who has publicly expressed opposition to national certification.

Your own curiosity about national certification has been growing and you haven't made up your mind. You plan to attend the meeting. After your last class, however, several students run up, asking for extra help. You oblige; when you get to the meeting, the debate is already under way. You slip in and find a seat....

Fragments from a Dialog

Jack Thomas: Frankly, I just don't believe you can invent a test that really gets at what it means to be a good teacher. Anyone who has spent time in a classroom knows how complicated the issues are. Sure, teachers need to know many things that we might be able to test. We have to know our subjects. We've got to be familiar with a range of methods. We understand how students learn—not just "students" but the particular students we work with every day. We have to evaluate and develop curriculum materials. We have to motivate students and diagnose the course of their learning. And so on.

But I don't see how standard assessment can get at a teacher's style and manner with students—personal qualities like enthusiasm, creativity, caring and commitment, persistence with difficult learners. How can any assessment measure the way we tailor the instruction to different groups of students—first period vs. third period or this year's class vs. last year's? Teaching is more art and craft than science. It's a moral undertaking, and it draws on a range of human qualities that aren't easy to assess.

Besides, I'm afraid testing will emphasize one "best" way to teach, but we all know there are many good ways to teach, and what works in one setting with one group of students may not work with others. All the tests I've seen—the paper and pencil tests, the classroom observation systems—rest on a particular notion of teaching that's supposed to be universally valid.

I don't know a single teacher who believes this, and so most teachers' experience with tests has been negative. We all know teaching is a vastly more complicated and more human

enterprise than ever gets reflected in standardized tests.

Mary Hawkins: I agree absolutely, Jack. But let's look at this matter from another angle. Granted, testing can't get at the subtleties of teaching that are crucial to excellence. But surely we can improve on the current state of affairs. Right now, teacher testing is crude. Whether it's state licensure or local teacher evaluation, we don't control the standards of our own profession, and so the standards control us.

But I believe if we as an organized profession turn our attention to assessment in a concerted, well-organized way, we can dramatically improve its quality. Other fields, with practices that are just as complex, have invented much subtler ways to assess their work. They rely on human judgment, not on predetermined, standardized responses. The bar exam involves problem-solving essays that are read by practicing lawyers. The architect registration exam involves design problems that are evaluated holistically by architects. Part three of the medical boards consists of computer-based patient management problems.

Look at the way we evaluate complex performances—gymnastics, for example, or figure skating, or diving. These are artful performances, and they can't be described by detailed criteria, but knowledgeable observers can use global criteria to rate them reliably.

Furthermore, the tests we've got now concentrate on our responses or behavior but ignore our reasoning. Teaching is a reflective practice. We think hard about our work. Giving reasons for actions, justifying decisions on the basis of judgments, is a hallmark of professionalism. The National Board for Professional Teaching Standards envisions assessments that give candidates for certification the opportunity to justify their actions in response to teaching situations, and to have their judgments reviewed by their peers who serve as Board examiners. Within this approach to assessment, candidates can defend a variety of approaches to teaching and discuss why particular approaches work in some situations better than others. They will have a chance to demonstrate how they tailor their actions to particular situations.

When you think about certification, Jack, you probably think of the conventional tests we have now. But the Board's going to develop assessments that are very different and come much closer to faithfully representing the complexity and variety of our profession. I don't claim we can capture everything that makes up good teaching, but I do claim we'll produce improvements that will be credible to teachers.

Anyway, if the teaching profession doesn't take control of its own standards, we'll go on having grossly inadequate standards imposed on us. The time has come for the profession to stand up and be counted.

We all know teaching is a vastly more complicated and more human enterprise than ever gets reflected in standardized tests.

Jack Thomas: I admire those ideals, but I wonder if we can carry through such an ambitious project.

Let me raise another issue, though. There are many disputes in teaching, around value issues, educational methods, ways of organizing practice, control over turf, and so on. I'm thinking, for example, about arguments between historians and social studies educators over the proper content of their field, or disputes over evolutionary vs. creationist accounts in biology, or controversies over bilingual education, or approaches to teaching writing or reading that divide the experts. The field of education is unsettled and is likely to remain so. How can a single national Board resolve these disputes? Who gets to decide? To set standards of "good" teaching, the Board would have to forge agreement when there is often conflict among the experts in a field or between the experts and the public. How does the Board expect to resolve these matters?

Mary Hawkins: By research and dialog. These kinds of dispute characterize *every* professional field. Look at the arguments about the proper treatment of cancer, or about treating mental illness with conventional therapy or drug therapy, or new and traditional conceptions of the law.

Knowledge isn't democratic. We don't vote on adding elements to the periodic table or replacing Newtonian with Einsteinian physics. The claim to professionalism rests on evidence of a knowledge base that effectively guides practice. That knowledge has to be validated through disciplined inquiry. It has to be continually tested and challenged through both research and practice.

Teaching has that kind of knowledge base, even though many of us aren't aware of that. Consulting the knowledge base is one way to resolve disputes about teaching practice. But scientific knowledge about teaching can't resolve many issues; it can never settle the value questions. Professions need sustained dialog to surface and resolve disputes.

Over the past five years the Board has sponsored such dialog across the country. We've developed position papers on our approach to teaching and invited criticism. We've refined our positions in response to such comments. And we'll go on operating as an open forum, inviting responses from public and professional interests alike.

Anyway, the Board members were chosen to be broadly representative of the profession, so we do rely on democratic principles to resolve difficult issues when we can't reach consensus—much as NEA subjects resolutions on tough issues to dialog, debate, and vote.

Finally, I believe that the assessment procedures themselves can accommodate disputes over practice. Where there's no scientific evidence to resolve instructional and curricular dilemmas, the Board must acknowledge in the standards the range of professional opinion on a subject. Then we'd judge responses on the quality of the rationale rather than on whether it matches scientifically validated facts

and principles.

Jack Thomas: Let's get more specific. I still can't imagine what these assessments will look like, or how a national board will actually administer a certification system in all fifty states. The problem seems enormous: creating certificates for elementary, middle, and secondary school teachers, for all the subjects in the curriculum, for specialist teachers. How can the Board accomplish all this?

Mary Hawkins: Frankly, I've had my doubts too. The Board hasn't solved all these problems yet. But here's what we've been thinking so far—although it could certainly change.

First, the assessment is likely to involve a variety of methods and a period of time. We hope that will yield a credible assessment. The methods are likely to include written examinations—both essay and computer-administered objective tests—on general and subject matter knowledge; assessment center simulations of the real problems and processes of teaching; documentation through portfolios of teachers' efforts that reflect their personal histories and the actual contexts of their work; and maybe testimony of teaching competence from colleagues. Each of these methods has weaknesses—but together they represent a major advance over anything currently in use.

Candidates might be required to assemble a portfolio of materials meeting a carefully structured set of specifications, involving collaboration with colleagues and collection of evidence over an extended period of time. They might present the portfolio at an assessment center. There might be two days of assessment exercises, some of them intersecting with the requirements of the portfolio. Locally, another Board-certified teacher, or a Board-designated supervisor, might attest to a candidate's effectiveness with a range of students and instructional methods.

That's an ambitious plan to carry out. The Board will have to carry through the developmental work to create the new assessments. We'll also learn to develop scoring procedures, establish a set of regional assessment centers, prepare a cadre of teachers to be Board examiners and develop training and promotional materials to help interested teachers prepare for the assessments.

We'll need the cooperation and support of a wide range of organizations—most importantly those representing teachers. The NEA and other teacher organizations can serve critically important roles in helping teachers prepare for certification, for example, or sponsoring teachers to serve as board examiners, or preparing the assessments themselves. We have a big job to do, but we hope that with the support of the organized profession, our problems will be manageable.

Knowledge is not democratic. We don't vote on adding elements to the periodic table or replacing Newtonian with Einsteinian physics.

You mentioned the range of certificates we'll need to offer. This is a difficult problem. We're still working on it, and we need to consult with the field. Probably we'll develop one set of certificates first, then gradually phase in others to cover all the teaching specialties. Some of us want very broad authorizations spanning grade levels, others want greater specialization—maybe overlapping certificates that cover just a few grades each. Similarly, an assessment might have some sections that are common across certificate areas and some that test knowledge and skill in special areas. Assessments might also allow teachers to acquire "endorsements" in more than one area, depending on the pattern of their practice.

States have wrestled with this problem for years in creating their licensure systems, and we've studied what they've done. Nothing's been decided, and we're discussing a lot of different plans, but we are certain a system can be crafted that meets with widespread approval and still preserves necessary economies.

Jack Thomas: I want to change the focus now. We've been talking about the nature of the assessment itself, but we haven't considered the effects of certification in the schools. Suppose the Board really can create a credible assessment and set up a system for administering it. I have serious doubts about its effects.

First, I see certification as introducing competition into teaching and dividing teachers. The danger is that we'll create a two-class society in teaching: those who are Board-certified and those who are not. This status distinction is likely to come between teachers who should be colleagues. Certification will produce resentments as some pass and some fail. The effects on the culture of the schools will not be positive.

I also worry about who will control what certification is used for. Why should teachers go to all the trouble of getting certified—pay a fee to take the assessments, travel to an assessment center, face the anxiety of taking a test, and everything else? You'll say that to become Board-certified is a professional responsibility and the reward will be recognition. Maybe that will motivate some of us, but for many the costs, both psychic and financial, will outweigh the benefits.

Then if Board certification does gain legitimacy with powerful groups, so that people think of it as a mark of excellence, everyone will want Board-certified teachers in their schools, and they'll start to exert control over the process.

They can do that in two ways: through incentives or mandates. Districts or even states might offer salary supplements for Board certification. Or else districts might require Board certification for tenure, or states might require it for renewal of a teaching license. It might also be tied to positions on career ladders, or to moving into administration. Universities might require that faculty preparing teachers be Board-certified. Some of these developments might be positive, but others are worrisome. How do you see certification playing out in the schools?

Mary Hawkins: This is obviously a most important set of questions. First, I think that certification's impact on teachers will depend on how they perceive the process. Teachers resent merit pay and other distinctions if they think the process for awarding it is biased, unfair, and unrelated to their idea of excellence. But teachers don't mind the recognition of their colleagues if they can see that the process is fair and faithful to teaching.

The way I see it, in schools of the future, teachers will be at various stages of working toward certification. Some will have attained it; they'll be helping others. Some will have passed parts of the assessments and will be working on other parts. Some will choose to acquire more years of experience before they undertake certification. And some will choose not to become certified.

Among those who try and fail, some will try again, and others may not. The ones who fail will be disappointed, but the schools won't be divided into two camps. We'll all be at different points along a continuum.

The key will be the legitimacy and credibility of the assessment. The very first teachers must come back from the assessment center with positive things to say about the experience.

Why will teachers choose to become certified? In the early years they'll be the risktakers who enjoy a challenge, who want to test themselves against a standard of excellence—and who want the recognition that comes with Board certification. But yes, of course, as certification gains prominence and more teachers are Board-certified, policymakers may try to use this new status. That doesn't really bother me, as long as the certification process is a good one and sets a real standard of excellence in teaching.

I'm in favor of salary supplements for Board-certified teachers. That wouldn't penalize anyone—it would simply reward a valuable effort to improve one's teaching. Tying certification to tenure or licensure may or may not be a good idea. Teaching in a particular locale may require some abilities that the Board's assessments don't tap. So districts should carefully study the certification standards to see whether they match what the district needs.

Again, it's hard to judge uses of certification without knowing more about the process. If certification comes to be well-regarded among teachers and the public, and if it's truly associated with excellence in teaching, I'll be in favor of efforts to increase the number of certified teachers in the schools. In other professions, governments haven't mandated certification, but incentives have arisen. I hope that's what will happen in teaching, too. It is certainly more in keeping with professional control over the process.

The very first teachers must come back from the assessment center with positive things to say about the experience.

Jack Thomas: There's one more problem, and it's serious. What about the implications for equity? I think there's a real danger that the assessments will discriminate by race and social class.

I don't mean the tests will be racially biased, but the kind of knowledge they'll tap takes years of high quality general and professional education to acquire. It's still true—and it's a tragedy—that many minority students can't get that kind of education. We've got a crisis in the recruitment of qualified minorities, and certification may contribute to the problem, not the solution. Suppose the pass rates fall out along class and race lines?

Besides, Board-certified teachers may well gravitate toward well-heeled schools in affluent suburbs and small towns that can outbid inner-city and rural schools. Certification may simply produce an elite corps of teachers for the most affluent communities. In that case, it will work against educational equity.

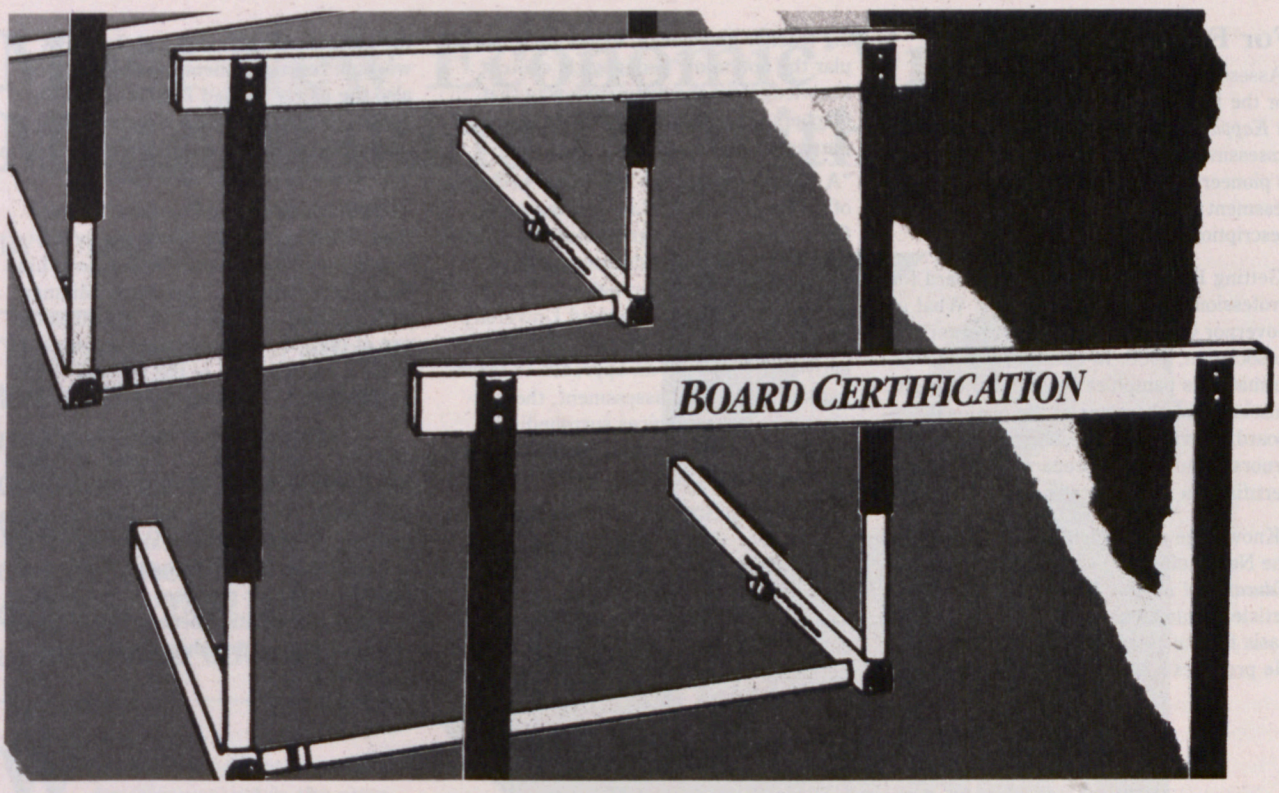
Mary Hawkins: I'm glad you raised that issue. Otherwise I would have, because it's so important. I can tell you what the Board is doing about it, but I have to admit it's a very difficult matter.

The deepest and most serious answer to this challenge is to affirm the need to improve the education of disadvantaged children in our society. All of us have to work on that—no one single group or agency can do it alone. On the Board, we're strongly committed to educational equality. We'll support other organizations pursuing this goal, and we'll work hard to equalize opportunity for certification.

We're thinking of several initiatives. First, all our assessment procedures will be carefully checked for racial and cultural bias. We will produce a fair system of assessment. Then, the assessments themselves can include sensitivity to cultural differences among students as part of excellence in teaching. For example, assessment exercises may tap candidates' knowledge of students' backgrounds, their ability to motivate students, to select appropriate curricular materials, and to adapt instruction to students from particular cultural and linguistic backgrounds. So we can really champion teaching that's sensitive to the learning needs of children and professionalism that's committed to equity.

We'll also work directly with colleges and universities that prepare minority teachers to help them prepare their students for the new assessments. And we can work with state and local policymakers to develop policies that encourage Board-certified teachers to work in schools serving all children.

Steps like these can't, by themselves, counteract the inequities—they're woven into the fabric of our society. But the Board can stand with others who are pursuing equity. We can promote an equity-sensitive conception of teaching in our assessments. We can ensure fairness. We can sponsor and encourage the preparation of minority teachers for certification. We can press for policies that equalize students' access to highly qualified teachers. Our contribution will be to underscore the importance



of educational equity to both the meaning and the practice of professionalism in teaching.

Jack Thomas: I like much of what you've said, but I have two thoughts. First, when I talk with other teachers, they don't see the problems of the schools in terms of standards. Rather, they feel they're carrying out one of the most difficult and important missions in our society with little support or appreciation. They feel that schools are expected to solve all of society's problems, that teachers are underpaid, that schools are poorly provisioned, and that the public underestimates the difficulties teachers face and the sacrifices we make. I don't see how this Board or national certification process will address our deepest feelings about the condition we're in.

Second, do you really believe that all this is possible? You've been persuasive in addressing my questions and worries, but there are an awful lot of assumptions built into your replies. As you've said, much depends on whether these whiz-bang assessments can be created, and whether both teachers and the general public find them credible. What are the odds?

Mary Hawkins: First, of course I understand how teachers feel—but I believe that in the long run the Board can help. Part of what we must do is influence public opinion about teaching. We must wage a long-term campaign to strengthen the image of teaching in our society. By taking charge of standards, by asserting that the teaching profession itself will define and promote excellence in teaching, we send the public a very positive message. We can start by defining standards, then together with other teacher interests, we can press for professional conditions of work, for social stature, and for compensation that reflects the value of teaching to society and the expertise that outstanding teachers possess.

My deepest hope is that our efforts to represent teaching knowledge in a system of assessments will take hold of the public imagination. People will see how complex the issues of teaching and learning really are, how much you need to know in order to teach well. On this basis, we can strengthen our claim for better public support and for higher regard.

Can we do it? Sure, the risks are high—but so are the stakes. And remember: it was only 65 years—a blink of human time—between the first flight on the sands of Kitty Hawk and sending a man to the moon. If our society could meet that challenge, surely we can invent a system of standards for teaching that honor its importance, its complexity, and its humanity. I believe that if we persevere in this venture, keep our nerve, and solve the problems that arise one by one, we'll be successful—to the benefit of teaching and learning, the profession and the public.

You walk out of the meeting impressed. This is a daunting undertaking to be sure, facing many problems. But the vision is exciting and the promise is real. As you drive home, you begin thinking about becoming certified yourself. If the assessments are demanding, then what pride you will feel in passing them! This is what teachers need, you realize—an occasion for pride, a recognition and celebration of teaching's worth and its challenge. As you pull into your driveway, you decide: yes, when the time comes, you'll go for it.

For Further Reading

"Assessment for Teaching: An Initiative for the Profession." Lee Shulman. *Phi Delta Kappan*, September 1987. The Teacher Assessment Project at Stanford University is pioneering vanguard methods for the assessment of teaching. Here's a good, brief description of its early work.

"Getting Ready for the National Board for Professional Teaching Standards: What a Governor Can Do." National Governor's Association, 1988. In question-and-answer format, this pamphlet describes the origin, mission, and character of the National Board, providing suggestions to state governors about how to prepare for teacher certification in their states.

"Knowledge and Teaching: Foundations of the New Reform." Lee Shulman. *Harvard Educational Review*, February 1987. In this article, Shulman sets forth the conceptual basis for the assessment work underway. He proposes a set of categories for analyzing teacher knowledge, exploring in particular the notion of "pedagogical content knowledge" as the distinctive way that teachers know their subjects for teaching purposes.

"A National Board for Teaching? In Search of a Bold Standard." Lee Shulman and Gary Sykes. Paper commissioned for the Carnegie Forum on Education and the Economy, available through the Teacher Assessment Project, Stanford University School of Education, March 1986. This early paper lays out an approach to teaching knowledge and assessment, then explores the policy choices surrounding establishment of a national board and certification process.

"Professional Standards for Teaching: The Assessment of Teacher Knowledge and Skills." Gary Sykes and Suzanne Wilson. Paper prepared for the Policy and Planning Center, Appalachia Regional Laboratory, August 1988. This policy paper describes not only the nature of the National Board, the certification process, and the early work on the assessment of teaching, but also the newly formed Interstate Teacher Assessment and Support Consortium, a network of state policymakers interested in the reform of teacher assessment.

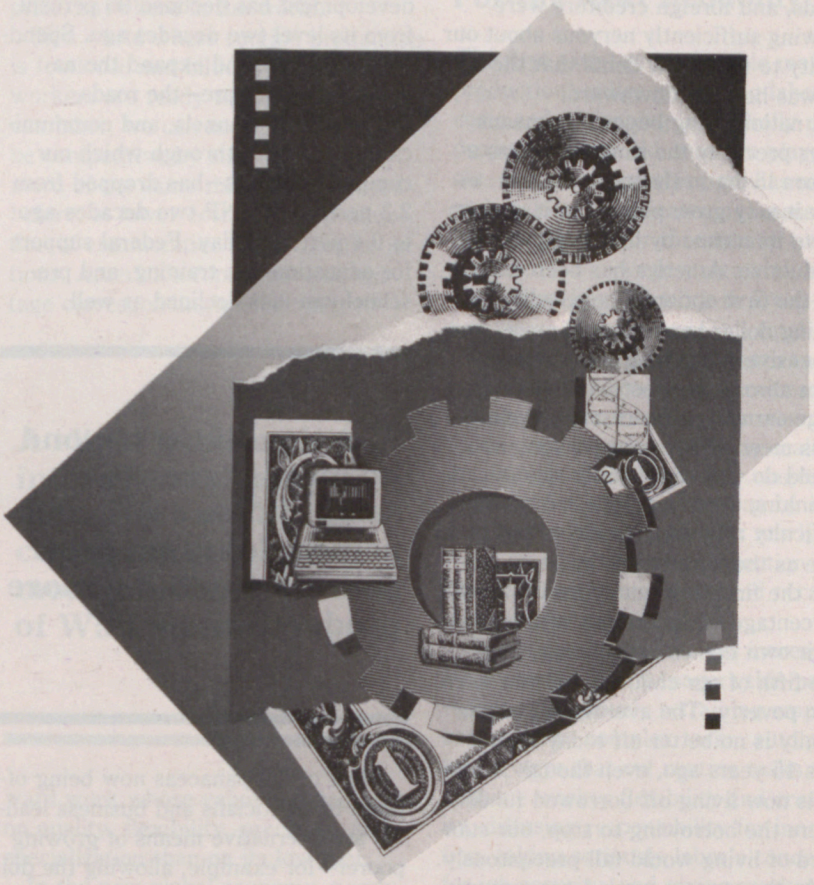
"The Schoolteacher's Portfolio." Tom Bird. *Handbook on the Evaluation of Elementary and Secondary Schoolteachers*, Linda Darling-Hammond and Jason Millman, editors. Sage, in press. Bird describes the use of portfolios in evaluating teachers, including specification of the process of constructing and evaluating portfolios.

"A Union of Insufficiencies: Strategies for Teacher Assessment in a Period of Educational Reform." Lee Shulman. *Educational Leadership*, November 1988. Here Shulman analyzes strengths and weaknesses of various strategies for assessing teacher knowledge and skill for purposes of certification, including the relation between such assessment and the larger educational reform movement.

Must New Economic Vigor Mean Making Do with Less?

BY ROBERT B. REICH

To compete more effectively, the United States must either cut labor costs or increase labor's value. One option is cheap. The other requires a totally new approach to education.



What kind of education will Americans need in the emerging economy? The conventional view is that Americans will need *more* and *better* education, but there is surprisingly little agreement about what *more* and *better* actually mean. The answer should not depend on occupational projections—that is, on estimates about which jobs are likely to be plentiful should the economy continue in the direction it is now moving—for that direction is toward a continuing decline in the living standard of most Americans. We need rather to define where we want our economy to go, and then ask what kind of education will help to propel us in that direction.

Robert B. Reich teaches courses in law, political economy, and public management at Harvard's John F. Kennedy School of Government. His current research focuses, in part, on the government's role in helping a national economy adjust to changes in world markets. Reich served from 1976 to 1981 as director of Policy Planning for the Federal Trade Commission. His writings include The Next American Frontier *(1983) and* Tales of a New America *(1987).*

The purpose of this essay is to explore where the economy is heading, where it should be heading, and what education can and should contribute. Its modest goal is to provide a framework for continuing discussion about these vital matters.

By focusing on the relationship between education and the next economy, I do not mean to suggest that education's only, or most important, purpose is economic. To the contrary: A truly educated person is motivated by, and can find satisfaction in, a wide array of things that are not traded in markets or that cost very little. A just and democratic society depends on a citizenry educated in civic responsibility rather than in economic aggrandizement.

The Current Mess

The stock market crashed on October 19, 1987, but the deterioration of the American economy had begun long before. America has been busy consuming more than it has produced. In 1986, for example, the nation generated some $800 billion more in goods and services than it had in the recession year of 1982, but it spent about $900 billion more.

We have been able to ignore this profligacy only because foreigners have kept lending us money, buying

our corporations, and purchasing our real estate. By the time of the crash, we were $350 billion in debt, almost one-half of the commercial real estate of downtown Los Angeles (among many other cities) was in foreign hands, and foreign creditors were growing sufficiently nervous about our ability to repay our debts that the dollar was heading downward.

A nation living beyond its means faces precisely the same choice as a person living in the same manner: either it may grow poorer, or it may improve its means by becoming more productive. America has been exercising the first option. The steadily declining dollar has rendered more expensive everything we purchase from abroad. In most families, two wage-earners are necessary to make ends meet, whereas years ago one would do. Average family size is shrinking. Young people are having difficulty affording houses nearly as nice as the homes they grew up in. For the first time since the 1930s, the percentage of Americans who own their own homes is declining. Over one-fifth of our children are now born into poverty. The average American family is no better off today than it was 15 years ago, even though America is now living off borrowed funds. Were the borrowing to stop, our standard of living would fall precipitously.

As the present work force matures, moreover, the first option (to grow poorer) becomes ever more likely. The number of American young people is declining, while retirees are increasing. By the year 2030, the number of workers supporting each retiree will have dropped from 3.3 to a bit over 2. Unless each remaining worker becomes far more productive than now (or unless retirees continue to work long after retirement age, or unless we allow into America large numbers of new immigrants), our average citizen will have to get by on a much smaller income.

The second option—becoming more productive—has been pursued less vigorously. Our indebtedness to the rest of the world would not be alarming were the proceeds invested in our future productivity, but such has not been the case. Net investment in plant and equipment, as a percentage of gross national product, has been no higher in the 1980s than in the perilous 1970s. Meanwhile, public investments have lagged. Government spending on commercial research and development has declined 95 percent from its level two decades ago. Spending to upgrade and expand the nation's infrastructure—the roads, bridges, ports, tunnels, and communications facilities through which our commerce travels—has dropped from 2.3 percent of GNP two decades ago to 0.4 percent today. Federal support for education, job training, and preschool care has declined as well.

A nation living beyond its means faces the same choice as a person doing so: grow poorer or become more productive.

Most of the panaceas now being offered by politicians and business leaders are alternative means of growing poorer—for example, allowing the dollar to continue to fall, cutting wages, reducing environmental and safety regulations, slashing welfare expenditures, protecting American goods from foreign competition, and even bringing on a recession. These strategies impose the burden of becoming poorer on different groups of citizens over slightly different periods of time, but their overall effects are much the same. There is no secret to becoming poorer. To repeat: The *only* becoming-richer strategy is to become more productive—adding ever-greater value to the world economy.

Work in the Old Economy

Productivity, however, is no longer simply a matter of making more of what we already make at less cost per unit. To add greater value to the world economy, we have to provide higher quality goods and tailor our products and services to the particular needs of consumers. This is a new challenge, entailing a very different organization of work.

In the early postwar years, most young people could look forward to jobs requiring only that they be able to learn some relatively simple tasks that could be repeated, over and over. That's because the American economy was organized around economies of scale. The goal was high-volume, standardized production in which large numbers of identical items could be produced over long runs, allowing fixed costs to be spread as widely as possible. Whether it was wheat, steel, or even insurance, the same overarching rule prevailed: Every step along the production process was to be simple and predictable, so that it could be synchronized with every other step. Productivity was a function of high volume and low cost.

There was little room or need for innovation. Once in a while someone came up with a major invention—e.g., continuous casters for making steel, automobile stamping machines, plastics—but these big breakthroughs were relatively few and far between. Indeed, innovation often was seen as a problem rather than as a solution. Innovation meant changes in products and production processes, and such changes cost money. If the changes happened too often, it was difficult to achieve the economies of scale necessary to pay for them and still make a profit.

Under high-volume, standardized production, a few people at the top made all the decisions. They designed the system and planned all the standard operating procedures by which it would run. Most people followed orders. Indeed, for the production system to be stable and predictable, the majority had to follow orders exactly. Rigid work rules and job classifications posed no challenge to this hierarchical system, because every job was rigid to begin with—like cogs in a wheel.

A primary goal of public education within this stable system was to prepare most young people for such "cog" jobs. They had to be trained to

comprehend and accept instructions, and then to implement them conscientiously. Discipline and reliability were core virtues.

A much smaller number of young people had to be prepared to act as decision makers at the top. They needed to be trained to gather information, translate the information into abstract symbols, manipulate the symbols to find answers, turn the answers into operating instructions, and then communicate the instructions downward. Here, abstract logic, clarity, and firmness were the core virtues.

Our schools were reasonably effective at preparing Americans for these two kinds of jobs. Most children graduated from high school or vocational school ready to accept cog jobs. A few were set on an advanced track through high school and into colleges that prepared them either for careers as professional managers or for the related professions of law, banking, engineering, and consulting. Productivity soared.

Enter the Global Economy

Today, high-volume, standardized production can no longer provide the productivity gains we need to maintain our standard of living. There has been a sea change in the world economy.

Until recently most goods were produced close to where they were to be consumed; the main exceptions were certain minerals, agricultural goods, and economically unimportant exotica. This pattern has been breaking down at an increasing pace. Consumers of cars, refrigerators, televisions and television programs, insurance policies, and even money, often live in different nations or on different continents from the producers. The producers, in turn, often depend on far-distant sources for components, designs, and information. It is now often cheaper to ship raw steel across an ocean than across the United States. Slight differences in interest rates may induce a New York corporation to raise money in Tokyo or in Bonn instead of on Wall Street.

Two decades ago international trade hardly figured in the American market. Today, more than 70 percent of the goods we produce are actively competing with foreign-made goods. Whoever can do it best and cheapest, anywhere in the world, now sells to whoever is willing to pay the best price, anywhere in the world.

In a world where routine production is footloose and billions of potential workers are ready to underbid American labor, we can no longer expect to be competitive by simply producing more of the same thing we produced before, at lower cost. As the production of commodities shifts to other nations, America's competitive advantage correspondingly must shift toward work whose value is based more on quality, flexibility, precision, and specialization than on its low cost.

A slight difference in interest rates may induce a New York corporation to raise money in Bonn instead of Wall Street.

In the new global economy, nearly everyone has access to big breakthroughs and to the machines and money to turn them into standardized products at about the same time, and on roughly the same terms. The only factor of production that is relatively immobile internationally, and on which the future standard of living of the nation uniquely depends, is *us*—our competence, our insights, our capacity to work productively together.

The older industrial economies like America thus have two options: they can try to match the wages for which workers elsewhere are willing to labor, or they can compete on the basis of how quickly and how well they can transform ideas into incrementally better goods and services. Both paths can boost profits and improve competitiveness in the short run, but only the second can maintain and improve the standard of living of most Americans over time.

Organizing Work For the Next Economy

The first path—toward stable mass production—relies on cutting labor costs and on leaping into wholly new product lines as old ones are played out. For managers this path has meant undertaking (or threatening) massive layoffs, moving (or threatening to move) to lower-wage states and countries, parceling out work to lower-cost suppliers, automating to cut total employment, and diversifying into radically different goods and services.

For workers this path has meant defending existing jobs and pay scales, grudgingly conceding lower wages and benefits, shifting burdens by accepting lower pay scales for newly hired workers, seeking protection from foreign competition, and occasionally striking.

The second path involves increasing labor's *value*. For managers this path means continuously retraining employees for more complex tasks, automating in ways that cut routine tasks and enhance worker flexibility and creativity, diffusing responsibility for innovation, taking seriously labor's concern for job security, and giving workers a stake in improved productivity via profit-linked bonuses and stock plans. For workers this second path means accepting flexible job classifications and work rules, agreeing to wage rates linked to profits and productivity improvements, and generally taking greater responsibility for the soundness and efficiency of the enterprise.

The second path requires a fundamentally different organization of work from that which has come before, as well as a different work force within that new organization. The old hierarchical arrangement in which a relatively few well-trained individuals planned and maintained the production system from the top, and almost everyone else undertook cog jobs below, is not up to the challenge. The technologies upon which we must continuously improve, and the tastes to

which we must continuously respond, are changing so rapidly that no set of decision makers at the top can hope to keep up. Much of the relevant information lies below—among production workers, production engineers, salespeople and others in direct contact with suppliers, production processes, and customers. There is not enough time for all the relevant information to be passed upward to the top decision makers and then down again in the form of new operating instructions. With valuable information and expertise dispersed throughout the organization, top managers cannot hope to solve problems and provide answers; their jobs must be to create environments in which people can identify and solve problems for themselves.

Ideally, individual skills are integrated into a group; this collective capacity to innovate becomes something greater than the sum of its parts. Over time, as group members work through various problems and approaches, they learn about each others' abilities. They learn how they can help one another perform better, what each can contribute to a particular project, and how they can best take advantage of one another's experience. Each participant is on the lookout for small adjustments that will speed and smooth the evolution of the whole. The net result of many such small-scale adaptations, effected throughout the organization, is to propel the enterprise forward.

The Challenge to Schools

The second path to the next economy—increasing the value of labor rather than cutting its costs—relies, above all, on a work force capable of rapid learning. The most important skills will be transferred informally among workers as they gain experience on the job, rather than gleaned through formal education and training. But the ability to learn on the job will depend on learning skills and attitudes developed long before.

The old system of education mirrored the old organization of production: Most people spent eight to twelve years of their childhood training for cog jobs, while a few were propelled toward top policy and planning positions. The new system must prepare far more people to take responsibility for their continuing education and to collaborate with one another so that their combined skills and insights add up to something more than the sum of their individual contributions.

Education is so central to our place in the new world economy that we will have to do a better job—particularly in two respects: helping all our children to become minimally numerate and literate, and preparing them for jobs involving responsibility and collaboration. The challenge is not simply or even most importantly to provide our children with more education, but to provide them with a different kind of education founded upon new premises about the world they will meet in the future.

Most got to the end of the school assembly line, more or less ready to take their places along some real assembly line.

Numeracy and Literacy

Today, a higher proportion of our young people are better prepared for productive lives than ever before. But the worst-prepared third of our young people—disproportionately lower income—are almost totally unprepared. They cannot do simple calculations, understand written directions, or read road signs, charts, and maps. And they often lack certain basic information about history, literature, geography, and the natural sciences.

These deficiencies are already affecting American business. When the New York Telephone Company undertook a large-scale recruiting effort in 1987, for example, it found that over 80 percent of its New York City applicants failed entry-level examinations in basic reading and reasoning skills. All told, one of three American corporations now provides some form of basic skills training for its employees.

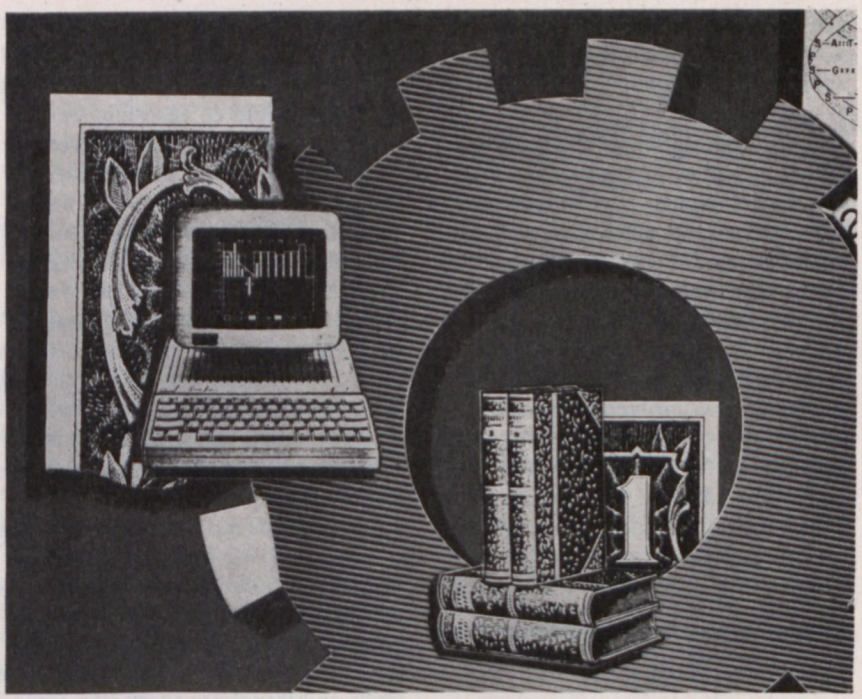
Perhaps we are too impatient—maybe reforms need more time to take hold. Or perhaps they are inadequate to the task of dealing with all the problems that accompany poverty and broken homes. Twenty-two percent of our children are now born into poverty, up from 15 percent in 1970, and it is projected that 60 percent of today's three-year-olds will live in a single-parent home before they turn 18.

Or it may be that formal schooling comes too late in the lives of our neediest children, when learning habits and attitudes are already firmly established. While there is overwhelming evidence that preschool programs designed to develop the intellectual and social skills of poor children have large payoffs later on, less than one-half of 1 percent of our national spending on education goes to children under the age of six. Or perhaps the reforms have backfired upon the neediest: Stricter promotion and graduation requirements may have prompted more of them to drop out. In many of our largest cities, nearly half fail to graduate. Overall, between 15 and 25 percent of our young people never finish high school.

Whatever the cause, raising the lowest achievers to minimal levels of productive competence is a large part of the challenge of American education in the next economy. Not only do we need a larger population of productive people to help pay off our international debt, but we also need them to support a growing population of retirees.

Assuming Responsibility

Achieving basic numeracy and literacy is only part of the challenge. If our economy is to transform itself—if we are to take the second path, toward higher-value production—we can no longer train the majority of our young people for cog jobs requiring primarily discipline and reliability. They must be prepared to take advantage of



whatever opportunities present themselves for improvements in product and process. To recognize such opportunities, they must be educated to think critically, and to continually learn on the basis of new data and experience.

In some respects, the training of young people in the old economy resembled the system of high-volume, standardized production in which they were to take part when their training was complete: Responsibility was exercised by a very few, at the top. The majority of students were pushed, as if on an assembly line, through a preestablished sequence of steps. Each step involved particular routines and practices. Teachers—the production workers—had little discretion over what they had to do to each batch that passed through; students passively received whatever was doled out. Inspectors tried to weed out the defects, sometimes returning them to an earlier step for reworking. Most got to the end of the assembly line, more or less ready to take their places along real assembly lines somewhere in the economy.

The premises of education in the next economy must be quite different. Just as productivity can no longer be a matter of making more of what we already make at less cost per unit, productivity in education cannot be solely a function of the numbers of children who pass standardized examinations at a lower cost per unit. Because our future economy will depend to an ever greater extent on thinking rather than repeating learned information, future reforms must motivate teachers and students alike to love learning, and not prescribe to them exactly what should be learned and how and when the information should be doled out. Responsibility must be pushed downward, to students and teachers. They must be allowed and encouraged to take more initiative in deciding what is learned, and when and how it is learned. Education modeled around long lists of facts that "every adult should know" and standardized tests will produce robots adept at Trivial Pursuit but unable to think for themselves or to innovate for the future.

First, instead of giving students information along a preestablished sequence of steps and then asking them to "play back" the information on tests, the emphasis in teaching should be on educating young people to formulate problems and questions for themselves. Thus, rather than teach students to assume that problems and solutions are generated by others (as they were under high-volume, standardized production), students should be taught to understand that problems and questions are created, that students can have an active role in creating them, and that such critical and creative approaches can guide them through their careers.

Second, instead of teaching through repetition and drill, the emphasis should be on allowing students to experiment for themselves with solving the problems they help define. Thus, rather than conveying particular pieces of information or imposing established routines—a type of teaching and learning relevant to high-volume, standardized production—teachers must help students gain the experience of working through problems and thus discovering underlying principles that help define and solve related problems.

The difference between absorbing information and gaining understanding depends on how much responsibility students are taught to accept for their own continuing learning. It is like the difference between learning how to get from one location to another in a city by having someone drive you and learning by driving yourself with a guide sitting beside you. In the first instance you may eventually learn the way, but you probably will learn sooner by being in the driver's seat. Indeed, if your guide also allows you to experiment a bit, warning you only when you're going down blind alleys or heading in the wrong direction, you may gain even more understanding of the terrain and thus learn how to find other places as well.

An understanding of underlying principles and patterns allows discovery of other information and gives that new information added context and meaning. The new information, in turn, permits deeper insight into the principles and patterns. As Michael Polanyi has written, "We cannot comprehend the whole without seeing its parts, but we cannot see the parts without comprehending the whole."

The habits and techniques of experimentation—of iterative discovery of parts and wholes—will be critical in the next economy, where technologies, tastes, and markets are likely to be in constant flux. A work force capable of taking responsibility for its

own continuous learning will prove a more precious national asset than countless new factories and pieces of equipment.

Collaborative Skills

Specialized skills also will be needed, of course. More of our young people will have to be able to communicate in foreign languages (for every American who now speaks Japanese, there are at least 10 Japanese who speak English) and gain a working knowledge of foreign nations and cultures. More of them will need advanced education in mathematics, science, and engineering. There will be a greater need for people who can cross disciplines—from, say, physics to computer programming, from biology to Chinese language and culture.

But our culture has never had much difficulty educating the most talented and fortunate fifth of our young people to do complex intellectual tasks. Analytically sophisticated students already graduate from our universities, trained for narrow specialties in which they manipulate symbols and concepts in wonderous ways. We may want to change the mix somewhat—more engineers and foreign experts, fewer lawyers and financiers—but there is no fundamental problem mustering talented people and getting them educated. The greater challenge is to transform the individual talents and specialized skills of the top 20 percent into collective capacities broadly shared across American enterprise.

In the old economy, a relatively few people at the top could analyze and plan the production process by themselves and then issue operating instructions to everyone else. So long as professional managers and their professional aides—bankers, lawyers, accountants, and engineers—got it "right" on paper, it was assumed that the rest would follow automatically.

But paper professionals are far less relevant to the future. As we have seen, the weakest link in the American economy is between ideas and implementation, between paper and product. Thus if our business enterprises are to be as flexible and innovative at all levels as they need to be, our youngsters must be prepared to work with and through large numbers of people.

Learning to collaborate suggests a different kind of education than one designed to prepare a relatively few talented young people to become professional experts. Instead of emphasis on the quiet and solitary performance of specialized tasks, what's needed is a greater emphasis on interactive communications linked to group definition and solution of problems. Students should learn to articulate, clarify, and then restate for one another how they determine questions and find answers. Rather than be trained to communicate specialized instructions and requests—skills relevant to high-volume standardized production—students should learn how to share their understandings and build upon each others' insights.

Productivity in education cannot be just a function of how many children pass standardized exams at lower cost per unit.

Communication skills are only one aspect of collaboration. Young people also must be taught how to work constructively together. Instead of emphasizing individual achievement and competition, the emphasis in the classroom should be on group performance. Students need to learn how to seek and accept criticism from their peers, to solicit help, and to give credit to others, where appropriate. They must also learn to negotiate—to articulate their own needs, to discern what others need and see things from others' perspectives, and to discover mutually beneficial outcomes.

The "tracking" system, by which students are grouped in the classroom according to the speed of their learning, is another vestige of high-volume, standardized production—the deluxe models moving along a different conveyor belt from the economy cars. This may be an efficient way to cram information into young minds with differing capacities to absorb it, but tracking or grouping can also reduce young people's capacities to learn from and collaborate with one another. Rather than separate fast learners from slow learners in the classroom, the system would do well to leave all children (with only the most obvious exceptions) together, so that class unity and cooperation are the norm. Faster learners would thus learn how to help the slower ones, while the slower ones would be pushed harder to make their best effort.

In sum, it is not enough to produce a cadre of young people with specialized skills. If our enterprises are to be the scenes of collective entrepreneurship—as they must be—experts must have the ability to broadly share their skills and transform them into organizational achievement; and others must be prepared to learn from them.

The Challenge of Cohesion

Numeracy, literacy, responsibility, and collaboration: this is a tall order for public education. But it is a necessary one if we are to succeed in the world economy in coming years. It will require that we do in our schools what we must do in our business enterprises: push responsibility downward toward teachers and students; invite continuous, incremental innovation at all levels; foster collaboration among parents, teachers, principals, community groups, and the private sector; and encourage flexibility.

Meeting the challenge also requires that we invest substantially in one another. We will have to pay more to educate our children—especially to attract and retain talented teachers to do the educating. (It is worth noting in this regard that starting pay for Japanese schoolteachers exceeds that for any other public servants in Japan, and is higher than or equal to that of engineers.) Teachers and educational administrators, in turn, will have to accept even more accountability.

We also will have to bear more of the cost of educating our fellow citi-

zens before and after their formal schooling. If our children are to be adequately prepared for school, Head Start and other preschool programs must become the norm. If our older workers are to be adequately prepared for jobs that are continuously changing, they must have easy access to retraining and continuing education.

Do we have the will to make the needed investments and undertake the necessary changes? Much depends on the extent to which we consider ourselves one people whose fates are linked.

We have a choice of paths toward the next economy—either cutting labor costs or increasing labor value. The first path will result in a lower standard of living for most Americans; the second requires that we all sacrifice in the short term in order to reap long-term gains.

For Further Reading

Changed Lives: The Effects of the Perry Pre-School Program on Youths Through Age Nineteen. J.R. Berreuta-Clement and others. High/Scope Press, 1984. For more information on the economic effects of preschool education, see this groundbreaking, long-term study on the individual and societal benefits of investing in preschoolers.

"The Interruption of Productivity." Edward Denison. *Economic Journal*, 1983. Denison shows that almost one-fifth of the growth in net national product per worker between 1948 and 1973 was a result of increased education of the work force.

Japanese School: Lessons for Industrial America. Benjamin Duke. Praeger, 1986. The emphasis in Japanese schools on teamwork in the classroom is thought to explain Japan's low rates of absenteeism on the job and its firms' quick responsiveness to new opportunities.

"Learning to Learn: A Behavioral Approach to Improving Thinking." Marcia Heiman. Paper presented at the Harvard Conference on Thinking, 1984. Heiman describes teaching methods that allow students to raise their own questions and solve problems they help define.

The Next American Frontier. Robert Reich. Penguin Books, 1983. Our "old" economy was dominated by a few large companies that quietly agreed not to innovate very much for fear of rocking a profitable boat. My book provides a more detailed description of this stable production system, and what we must do to change it.

"Norms of Collegiality and Experimentation: Workplace Conditions and School Success." Judith Little. *American Educational Research Journal*, fall 1982. This article shows the connection between pushing responsibility downward toward teachers and students and school success.

Dinner at Abigail's: Nurturing Collaboration

BY MADELEINE R. GRUMET

Sometimes it takes going beyond school walls to understand what true education reform really means. Here's the story of one group of teachers who've learned that lesson well.

Abigail's is perched opposite the shopping mall on Routes 5 and 20 just inside the town limits of Seneca Falls, New York. It is a large, white-sided, rambling place, set off from the road by a gravel parking area that can easily accommodate the regular meetings of the town's Kiwanis and Rotary Clubs. Exempted from the precious self-consciousness of nouveau cuisine, Abigail's dinners are disarmingly generous. Relish trays, soups, salads, and desserts appear as a matter of course. So it was during dinner at Abigail's, ordering the onion soup, passing the relish and the rolls, that the faculty of Mynderse Academy figured out how to work together.

Madeleine Grumet is a curriculum theorist specializing in humanities education, teacher education, and feminist theory. She has taught high school English and been professor of education at Hobart and William Smith Colleges in Geneva, New York. She is currently professor and dean of the School of Education of Brooklyn College of the City University of New York.

Grumet is the author of Bitter Milk: Women and Teaching *and is the editor of the series Feminist Theory in Education for the State University of New York Press.*

Mynderse Academy is one of the 26 public schools in the nation (and one of the handful of high schools) selected to participate in NEA's Mastery in Learning Project (MIL). Then a professor of education at Hobart and William Smith Colleges, I was the consultant to the Mynderse project.

Aimed to encourage and support teacher development, teacher empowerment, and curriculum change, MIL requires that teachers get together to determine what they need to do to improve the learning environment, politics, and curriculum of their school. Implicit in the MIL agenda is the assumption that what goes on in the classroom is linked to what goes on in the corridors, the lunchroom, the principal's office, the teacher's rooms, even the buses.

At first, we in the Mynderse project met in the library after school. Representatives to the project steering committee came when they could. But it was difficult. The teachers were tired, had to leave for other meetings, were reluctant to give up time set aside to help students with class assignments. We persevered, trying to shape the project with whoever was there—but our project didn't start to come together until the night we had dinner at

Abigail's.

Certainly, we can attribute some of the success of that dinner to the renewed energy we all felt given a few hours between teaching and reconvening. We can attribute it to the amenities of this welcoming place, the raising of glasses and the ceremonious passing of rolls and relish. And, over the years, some of us had come often to Abigail's with our families to celebrate birthdays, graduations, anniversaries, even those Thanksgivings when we didn't want to cook. So I will grant that, along with soup and salad, Abigail served murmurs and memories of warmth and intimacy.

Dinner at Abigail's may be merely one more instance of the contrast of recreation to work, of relaxation to tension, of intimacy to formality. But rather than accept these oppositions as necessary, I want to consider what it would take to move the energy, the confidence, and the fellowship that we discovered at Abigail's back into the cafeteria at Mynderse Academy. Sorry, Abigail. There will still be Kiwanis and Rotary.

The Model of Democracy

In the early days of this century, John Dewey taught those concerned with education that the school should provide a model for the organization of a democratic society. He encouraged educators to develop curricula that would provide children with structures for negotiation and decision making and with learning experiences that would help them develop the ethics and rational powers to participate responsibly in the shaping of their shared world. School, Dewey thought, is the place to practice making a better world.

Education is, after all, the process through which we take what is accidental and habitual in everyday experience and, with study and deliberation, choose what should be passed on to the young. Like Dewey, we continue to try to make our world better by educating our children to save themselves, and us, from the consequences of our mistakes. The child redeemer is a theme that runs through our culture as we prepare the next generation to deliver us from drugs, poverty, racism, and pollution. In practice, the education of these adorable saviors carries them from sentimental kindergartens and authoritarian classrooms to sun-dappled commencements where we exhort them to make the world a better place.

Our commitment to our children will continue to animate and direct our work as educators. Nevertheless, we have come to acknowledge that we cannot reform adult culture and society merely by manipulating the lives and relationships of children. If we accept Dewey's conviction that the school should be the model for a democratic society, then we must pay attention to the adults who open the doors, ring the bells, hand out the books and the homework assignments. And we need to pay attention not only to teachers' relations to the children, but to their relations to one another as well. What do they know of one another's work? When and how do they work together—if they work together? Do they know the parents of the children they teach? Do they want to know them and to engage them in this work of teaching their children?

What would it take to move the energy, the confidence, and the fellowship from Abigail's to the school cafeteria?

The Isolation of Teachers

In an era of increasing bureaucratization, when small businesses have been swallowed by large corporations and office design provides cubicles without doors, windows, or real walls, teaching "behind the classroom door" has continued to extend an invitation that promises personal and distinctive practice. Many who rejected the depersonalization of business have been drawn to teaching, believing that it would offer them rich and vivid communication with students, as well as self-directed work. "Behind the classroom door" has come to stand for the privacy and intimacy that teachers establish with their students when they close that door, construction paper taped over the glass, and get down to business.

But recent efforts to standardize curricula and teaching have seriously undermined this possibility of an individuated, self-determined way of working. The testing movement collapsed curriculum into cram sessions. "Back to basics" brought with it a deluge of dittoes and of standardized materials. Centralized book ordering fostered a reliance on textbooks, which, when linked with standardized tests, obligated teachers to stick to the questions in their manuals.

Even the talk between teachers and students—the conversation that might take place if the P.A. system were out of order, the kids were not pulled out for "specials," and the door were closed—even that spontaneity has been squelched by those who took Madeleine Hunter's suggestions for curriculum and turned them into scripts for teacher talk and checklists for teacher evaluations.

As the individual intentionality and creativity of teaching have been appropriated by centralized administration, state testing agencies, and book publishers, teachers have remained isolated, confined in their classrooms, without the compensation of determining the character of their work with the children they teach.

This, as Sara Freedman and the Boston Women's Teachers Collective argue, is what burnout is about. It is less about being overworked than about feeling responsible for the experience of children and forbidden to shape that experience. It is the frustration of being harassed and hampered by the organization of space and time and materials that are essential to your work without having any say about how these resources that shape schooling are distributed.

In too many schools, teaching is experienced as isolated and isolating work. Teachers just do not have very much to do with one another. The ne-

gotiations they should have among themselves take place with administrators—or not at all.

If teachers have been lured to the classroom by the promise, however false, of individualized, expressive work, they have been lulled into passivity once there by gender relationships that are shadows of male-dominated, patriarchal families. Too many elementary schools conform to these arrangements. Directed by male administrators, female teachers compete with one another for paternal approval or share their ideas almost surreptitiously.

Given no time in the school year or the school day to talk to one another about their work, teachers find themselves hanging around one another's classrooms at the end of the day just to work out some of their concerns before they turn around and head home to the demands of their domestic lives and families. What they know about their work, what they have to teach others, their art and their science, remains sequestered in the confidences of friendship and rarely finds its way to the tables where policies are determined.

There is not space here to elaborate on the many ways that the culture of teaching encourages teachers to work defensively and alone. But this brief sketch of the themes that encourage isolation should indicate that the intellectual and political loneliness of teaching is both encouraged by external pressures and exacerbated by teachers' reactions to those intrusions.

The Politics of Teaching and Curriculum

When teachers take back the prerogatives that have been abrogated by administrators, they are not merely satisfying their human needs for contact, for self-esteem, and for community—although these are all legitimate motives. The social and political isolation of teachers from one another also affects the knowledge that they are able to share with their students. Curriculum is not merely the syllabus. It is not only the reading list, schedule of tests, papers, and homework assignments. Curriculum is the way the world enters the school. It encodes the social relations, the power relations of people and knowledge. If those relations are seen as adversarial, split off and specialized, the world we bring to children becomes a jumble of walls and barriers and gates, which students must negotiate as if it were an obstacle course.

Too many teachers talk about events and things that are linked to each other in reality as if they existed in separate universes because they don't talk to one another. Too many teachers assign papers or tests on the same night because they don't speak to one another. Too many elementary school teachers who must teach several disciplines and could be sharing their expertise offer shoddy instruction because they do not speak to one another. Pathways to a coherent world can be marked only by people who can speak to one another.

Burnout is less about being overworked than feeling responsible for the experience of children and forbidden to shape that experience.

In high school, isolation takes other forms. Often, male teachers, eager to disassociate themselves from the stigma that denigrates teaching as women's work, affect an exaggerated separatism. This desire to differentiate themselves from the culture of teaching and from their women colleagues leads men teaching in disciplines that are traditionally male-oriented—math and science, computers, business and technology, physical education—to portray their disciplines as split off from the common discourse of the school.

In attempting to ward off eroding waves of administrative intrusion, high school departments often become increasingly self-protective and self-interested. These characteristics, originating perhaps as defensive responses to social and political pressures, saturate the curricula of their disciplines as well, fostering increasingly specialized and self-referential approaches to mathematics, literature, chemistry, or art.

Curriculum is not only an arrangement of knowledge. Curriculum is material. It takes place. It takes time. The arrangements of space and time that shape the class period—lockers slamming, papers out, bells ringing, get that assignment on the board—the details that determine the beginnings and endings, who sits next to whom, who gets to move, and who gets a room with a view: all the details matter.

The faculty at Mynderse Academy understands this. They understand that critical thinking, writing across the curriculum, math and science literacy—all the new and desirable programs proposed for the secondary school curriculum—must literally take place. They must work, if they are going to work at all, in Seneca Falls at 10 o'clock on a Thursday morning. And if they are practiced in only one or two classrooms by courageous individuals, they will, in time, fail.

For whatever goes on in one room must influence what goes on in all the others. As in an ecological system, a disaster or a miracle in any sector of the system will require notice and accommodations in the others. So it is not enough to attend to the syllabus, the state requirements for graduation, test scores, and teaching methods. It is going to school and living and working in Seneca Falls that this faculty has begun to address.

At Abigail's, lured away from offices, classrooms, and corridors, the Mynderse teachers leave behind the territories where their special interests are rooted. Around the long dinner table in Abigail's back room, people begin to talk about the issues that their departments face. Teachers from English, from music, from social studies and physical education listen to the representatives from the chemistry department talk about what it means to their curriculum to have their lab periods reduced. Teachers from the physi-

cal education and technology departments agree not to denigrate each other's agendas in their attempts to stave off a plan that would collapse both programs into one room.

When issues such as these stay in the discrete departments, the faculty is divided into competing interests—just the situation Machiavelli recommended to those who would retain control. Then the general good is distinguished from the particular good. The principal or the superintendent, administrators who are not entangled in the lives of individual students, stand for the common good. The teachers, those with intimate knowledge of the students, negotiate only so far as the limits of their courses or disciplines permit. Access to the "whole child" or the "whole curriculum" is ceded to the administration. When teachers challenge administrative decisions, they are reminded that only the administrator's views and concerns are comprehensive. Only when representatives from all the faculty meet and discuss their needs and commitments can the faculty address the good of the school.

Dinner at Abigail's doesn't just bring members of different departments together. Dinner at Abigril's brings teachers out of the school and into the world. For too long, contact with the "outside world" has been owned by the front office. Denied phones, opportunities to leave campus for an hour or an afternoon, denied sabbaticals and leaves, the very teachers whose work it is to introduce our society's children to a complex world are themselves exiled.

Perhaps, if we were all more comfortable in the world we have made for ourselves, we would be less ambivalent about bringing our children into it. The schools we build to introduce them to the world more often function like a cocoon, keeping students and teachers alike out of it. Sequestered and infantilized, students—and teachers—yearn for color, for context, for conflict, for purpose.

Abigail's may not provide a Cajun festival, an Italian block party, or even a "power breakfast," but it is out there in the same world where we all live. Curriculum is about the world, and curriculum needs to be negotiated in and through the world.

After Abigail's

The new superintendent in Seneca Falls knows that a district that keeps its teachers sequestered, isolated, defensive, and infantilized cannot expect them to provide vital, confident instruction to children. After we in the Mastery in Learning project establish our own confidence and fellowship at Abigail's, we ask for time, time for all the teachers to meet during the school day. The superintendent arranges to send the Mynderse students home early two days a month. We plan to meet in the cafeteria. It's not Abigail's, but it's the first time the district has acknowledged that its teachers need and deserve some time to work together.

As in an ecological system, a disaster or a miracle in any sector will require accommodation in the others.

That first time, the superintendent meets with us. He's responding to the messages the world sends him: "effective schools" literature, dire pronouncements of national reports on schooling, regulations, lists, and standards promulgated by the state. Kids graduating from this school district, he tells the faculty, will have to either get an academic diploma and go to college or develop a skill that will get them a job. The district will send the noncollege-track kids to regional vocational centers.

Sitting in the high school cafeteria, inhaling the lingering aromas of pizza and brownies, the teachers are not happy about what they are hearing. They want to keep the "local students" (that's the noncollege-track kids) in town. If the students go to the vocational centers, they will spend two hours a day on the bus and necessarily become marginal and intermittent visitors to the community of their own school.

It is almost 3:30. Teachers are starting to leave—first the coaches, then others. Three years since the National Commission on Excellence in Education reports, and the war against Toyota is still being waged in the state's Regents Action Plan, in standards for high school graduation that ensure higher dropout rates, and in the splitting of the school population into vocational and collegiate tracks.

Casualties of the campaign for excellence are nominated to spend two hours on the bus for courses in cosmetology and auto mechanics. Only 35 percent of these vocational students will end up employed in the trades for which they have abandoned general education, the soccer team, the school play, and the promise of promise.

Not all the teachers leave. Some stay. Their talk could be called political, or it could be called pedagogical:

How could we get statistics from the NEA on vocational education to counter the superintendent's ideas about the regional centers? Should we contact the curriculum committee of the school board, or make a statement at the public board meeting?

None of the parents of the nonacademic kids are on the board or come to its meetings. Who could identify them and alert them to what would happen to their kids if this went through?

Could we convince the rest of the faculty we need to form a curriculum council so the departments can pool information and interests and develop a schoolwide position? That way we could prevent a divide-and-conquer strategy by the administration.

Research, public relations, policy making—all the processes associated with administration—are being claimed by teachers working desperately to educate their students.

At its next working session, the faculty hears from Clyde Collins, who chairs the steering committee of the Mynderse MIL project:

With these meetings, we are moving from a collection of autonomous

individuals with little internal communication to a faculty that utilizes a collective approach to education at Seneca Falls.

Collins challenges his colleagues to take up the project of making and remaking policy:

> I'm not sure of the solution, but it would seem that some kind of faculty group needs to be created that would review curricular concerns with the administration and the curriculum subcommittee of the school board. And this group should instigate action, not just respond to action taken or proposed.
>
> Teachers as a group, given the time and place to communicate with each other, know more than any administrator whether a program is working and what needs modification. We hear the diverse comments of students, parents, and citizens. We as a group have years—decades—of experience in the community and know its needs as well.
>
> I believe that a faculty that has ownership of its programs will work to improve them, but a faculty that never knows when its labors will be for naught will resign itself to mediocrity.

Teachers Address Community

The Mynderse faculty has formed a curriculum council to provide a forum for issues of interest to the teaching community and to communicate faculty opinion to the board of education. The council has met with the school board's curriculum committee and has made presentations at public board meetings. The council has started its own research project to investigate the value of the school's programs in business, home economics, and industrial arts to their graduates. A clear sense of urgency, almost outrage, inspires the work. The collective concern comes through in this statement written by two of the teachers in the research project, Marge and Don Fahrenholz.

> Seneca Falls was a college town with several large industries. The college closed, the hospital no longer functions, a large industry has relocated, and our school system has changed with the changing population. It now has fewer students of high academic achievement but rather is noticing a shift to students with special educational needs.
>
> An attitude that has existed in this community for many years is based on past scholars. One student who graduated several years ago from Mynderse has worked at the White House for the President and is now in the Treasury Department. He's cited as an example of the type of student Seneca Falls has. While many graduates of Mynderse have gone into prestigious positions, no mention is ever given to the students who dropped out of our school because it was no longer functioning for them. These students have not dropped out of town; they're still here, working in one of the local factories. You can walk through Goulds Pumps and meet these people any time. They vote on the budget, and they remember.

Casualties of the campaign for excellence are nominated to spend two hours on the bus for cosmetology courses.

If you have wondered why teachers, who already are burdened with large classes, time-consuming study and research, exhausting bureaucratic and disciplinary tasks—why these teachers should desire to assume some of the responsibilities that have been the province of administrators, the passion of this statement may provide your answer. No good teacher merely teaches a discipline, a body of knowledge or subject matter content, even though we are often encouraged to think of teaching as merely the careful delivery of precious objects.

And teacher empowerment does not require the development of group process or leadership skills. Teachers are informed, concerned, and mature citizens. Join them at Abigail's sometime. You will see that in an environment that invites exchange, collegiality, and self-esteem, teachers are confident, generous, and creative. Provided with conditions that permit them to work together and to address the real issues that face them and their students, teachers can and do change schools.

Teaching is about how to live in the world. And it is by working together to share and shape the world of their students that teachers act and teach responsibly.

For Further Reading

Bitter Milk: Women and Teaching. Madeleine Grumet. University of Massachusetts Press, 1988. How is teaching meaningful to us as part of our society's private and public projects to create and support a new generation? The influences of gender and parenting are explored, both in the lives and work of individual teachers and in the ways that schooling in this nation has developed in response to these human commitments.

The Empowerment of Teachers. Gene Maeroff. Teachers College Press, 1988. Maeroff reviews the conditions of and constraints on the work of teachers and details the new programs initiated across the country to acknowledge and support the leadership of teachers in curriculum reform and development.

Rethinking School Improvement. Ann Lieberman. Teachers College Press, 1986. In this collection of essays addressing school improvement, chapters by Maxine Greene, Huberman and Miles, Lieberman and Miller, Schwartz, and Jacullo-Noto and Passow raise interesting questions and possibilities for teachers to direct the development of curriculum and schooling.

The Struggle for the American Curriculum. Herbert M. Kliebard. Routledge and Kegan Paul, 1986. Kliebard traces these themes in the evolution of the American curriculum: the work and thought of John Dewey, vocational education, activity curriculum, scientific curriculum-making, social reconstructionism, and life adjustment education.

"Teachers as Political Actors: From Reproductive Theory to the Crisis of Schooling." Dennis Carlson. *Harvard Educational Review,* August 1987. In laying the basis for a view of teachers as an important force for transformative change in the schools, Carlson also reviews the historical development of teachers' professional and trade-union movements, locating them in a general analysis of U.S. work culture.

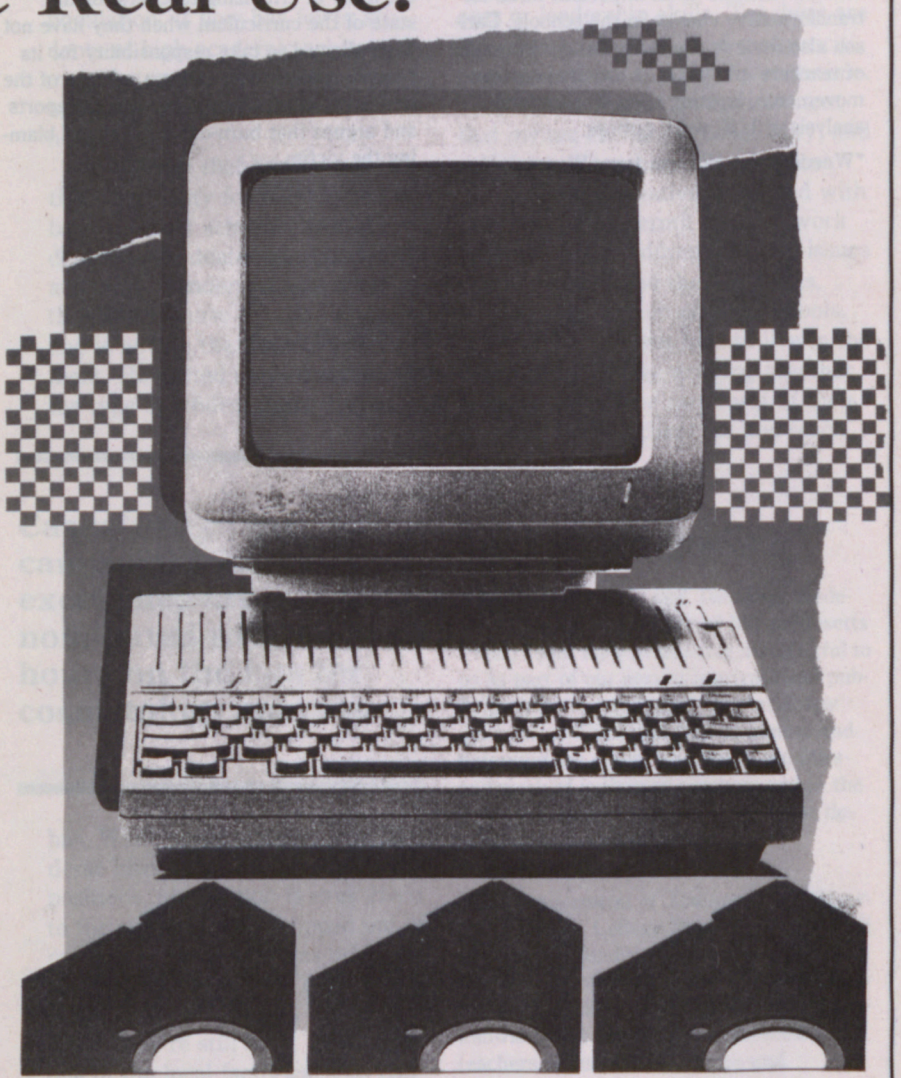
"Weeding Out Women from Women's True Profession: Burnt Out or Beached." Sara Freedman. *Changing Teachers, Changing Lives.* Len Barton, ed. Open University Press, 1987. Freedman addresses the irony of criticizing teachers for the state of the curriculum when they have not been allowed to take responsibility for its form or content. She offers a critique of the treatment of teachers in the school reports and argues that burn-out is a form of blaming the victim.

Women Teaching for Change. Kathleen Weiler. Bergin and Garvey, 1988. Weiler examines the experience of women who, as teachers and administrators, work to change the conditions of their work and the character of the curriculum. She addresses their efforts to develop a critical consciousness of the political and social forces that are shaping their lives and the lives of their students.

Computers in School: What's the Real Use?

BY RICHARD C. ADAMS

Shaky software and too few machines raise the question whether computers in schools are worth the bother. But given time and training, teachers can use them to teach more effectively.



Why should I spend my time learning about computers? Aren't we spending too much money on them already? Why doesn't somebody make my job easier so I can reach more kids? Let me teach, don't waste my time with administrivia and things I don't need anyway.

Are you nodding your head? Did you give a "Right-on!" once or twice? You're not alone.

In June 1988, the *Wall Street Journal* carried a front-page headline: "Computers Failing As Teaching Aids." Is this your fault as a teacher, or are computers just not worth it? The sub-headline gave some hints: "Heralded Revolution Falls Short Due to Lack of Machines, Training." Is your school falling short? Should teachers like you get involved with computers?

Oh, a lot of teachers out there are already using computers in some way. The True Believer, who fiddled with them back in the late '70s, is now probably the district computer coordinator. Does he (it was usually a male math or science teacher who first started using computers) really know how to teach better than you do—or did he get into computers because he was burned out on teaching anyway and now he doesn't have to work with kids anymore?

How about the teacher down the hall who hadn't touched a computer until last fall? She's become the Recently Converted, and she's trying to do simply *everything* with the glowing beast. She writes letters, composes lesson plans, makes out schedules, creates flash cards, and is trying to make toast with one. She seems to think now that anyone who doesn't see the future in green electronic letters the way she does is Old-Fashioned, Intellectually Blind, or Just Needs to be Properly Informed.

Richard C. Adams teaches first- and second-year chemistry, physics, five levels of computer programming, calligraphy, photography, and gifted programs in world history, liberal arts, and three foreign languages in the Pleasant Hill (Oregon) school district, where he has worked for 19 years, and at nearby Marylhurst College. Adams is the author of Misiones de California en Caligrafia *and* Science with Computers *and is science editor of* The Computing Teacher.

Of course, there's Fred in the room on the other side—the Confirmed Technophobe. He never shows a movie, makes copies of his endless worksheets with the good old ditto machine, and accuses teachers who use videotape of being lazy and getting their lesson plans "from Hollywood." "Computers are never going to work! I've seen it before—the pendulum will swing back my way again!" he warns.

What about you? Maybe you had an inservice on computers. That was the day when Mr. True Believer and Ms. Recently Converted showed a videotape, demonstrated some programs on small screens, and actually had all of you sit down in front of a real computer (five chairs, one screen) and run a few programs. Fred Technophobe just watched somebody in his group become confused and made disparaging remarks about how much time this was taking when he could be typing up more dittos (he *does* use a typewriter, but that's because his old Royal was born before he was).

But that inservice day didn't really seem to "take" with you. Actually, it didn't seem to change things much among the rest of the faculty either.

The kids are a different story, now. Many seem to be comfortable with computers right away—but then they can get on a skateboard without killing themselves, too. They've grown up with videogames and can't remember when everyone didn't have a calculator, so computers are no big deal to them.

Apples: For the Teachers?

The school districts started looking into computers back in the late '70s. Some decided the machines were too expensive and they'd wait 10 years or so "until the prices came down," like calculator prices. Some parent groups wouldn't let them wait and started having bake sales to "buy an Apple for the teacher." Some districts had a central buyer who got a bunch of computers at "three for the price of two" rates. They weren't very good, and they ended up in a warehouse someplace after better models came along.

The computer salesmen promised us that computers would be able to teach the classes for us and that kids would be graduating with much more learning than we poor, unassisted teachers were able to give them.

What happened to the predictions?

It turned out that there wasn't much software (the programs for the computers) in the educational field that was really worth much. You could do drill-and-practice pretty well—the computer was infinitely patient about waiting until the student got it right. Still, even with the best drill-and-practice program, you get better results by directing the learning on the computer yourself. I know drill-and-practice is boring, but some things in life *are* boring, and students have to do them over repeatedly until they don't have to think about it. But you might be better off making flashcards instead of using the computer.

The salesmen promised us computers would teach the classes and kids would graduate with more learning. What happened?

It wasn't too long, however, before some things did appear to work better on a computer. Students could be taught to program a computer, which gave them a skill they could make money with (in those days) and taught them valuable lessons about precisely structuring communication. Teachers who wrote teaching programs learned a lot about just what steps it took to actually teach a concept or skill to someone else. Still, that was sort of like taking Latin to learn discipline and humility.

The math and science people seemed to take to the computer rather quickly. If you took algebra, you may remember dear old Mr. Johnson graphing equations on the blackboard: for even a simple equation, that would take half the period. By the time he got to the stage of wiping out the fifth wrong point with his hand (why didn't he ever have an eraser?), you and the rest of the class had gotten bored and lost the concept of the exercise entirely. Now students can get graphs plotted instantly. If $Y = X$ is a straight diagonal line, what happens if you make it $Y = X + 4$? If $Y = X^2$ is a U-shaped curve at the center, what about all those equations that were something like $Y = (X + 3)^2$ that you were constantly multiplying out and factoring? Using a graphing program on your own for about an hour can give you a whole new delight in what numbers can do and what your own imagination can think up. Math becomes something to play with, not something to dread. Humans love pictures, and the computer can make numbers an artistic expression.

Science teachers don't usually care about the joy of mathematics or the beauty of curves. They use mathematics as a tool for working with data from experiments. Computers are very fast calculators that do "number crunching," quickly handling large amounts of tedious calculation. Kids can learn more science if the arithmetic doesn't get in the way.

The computer can even be a "smart tool," actually gathering data. A thermometer can be attached to a computer, for example, and the computer can be programmed to record (and graph) temperatures every second. You could, for instance, put a thermometer in a cup of hot water and surround it by a different type of building insulation every day, leaving it overnight to see how efficient each type was.

Computers and Real Teaching

But what about real teaching—besides drill and practice? It turns out that computers can actually do some types of teaching pretty well. The secret for the mathematics teachers, remember, was graphics. What if a health teacher could show a heart beating at normal speed, slow speed, and stop-motion? Would that make it easier to teach a child how her body works? You can do something similar with some videotape machines, but computer animation can put in those arrows, color code the blood, and identify parts with names at the right moments.

A good teacher can do a lot of hand-waving at the blackboard and achieve the same results. But what do you do about the kid who doesn't get it the first time, or the student who was sick yesterday (from cutting up the frog), or the eight kids who were away at a basketball tournament? Of course, you *could* give the lecture and demonstration over again 10 or 15 times. Or you could let them work with the computer simulation for awhile and then find out what was still left to explain. The computer lets you do the creative things—it does the repetitive stuff.

"But that's still science," I hear you cry. "I'm a social studies teacher." Well, if you emphasize memorization of dates, places, and people, the old generic drill-and-practice program will suffice. Beyond that, books work well for transmitting factual information: your lectures provide overviews and bring together different aspects from your experienced perspective. You have worked with these subjects a lot and can use your knowledge to help guide the kids in finding *meaning* in all those dates and places. What more could a computer do?

What if there were a way to give students more of the social science skills you've acquired over the years? What if they could see trends and patterns in raw historical information the way you do?

A protean tool for computer users is the database—in essence an electronic file cabinet or index card box. Suppose you put data on all the countries in the world into an index box: each card could have one country's name, size, population, Gross National Product, literacy rate, birth rate, death rate, and maybe average education or even number of physicians per inhabitant.

Now arrange the cards in alphabetical order—and you have basically what you can find in any world almanac. Now sort the box again, this time by size. What's the biggest country? Are the biggest countries the most powerful? Now alphabetize by GNP, and reconsider power. Divide all the GNPs by the population and come up with a new section on the cards labeled "average income." Now sort the cards by income. Are the most powerful countries those whose citizens have the most money to spend?

If you're still working with that card file box, you're getting tired of sorting, even though you may be learning something. A database program could do each of those sorts in seconds. If all your social studies students had access to this collection of facts, think of the significant questions you could put to them. Is there any correlation between number of physicians per thousand inhabitants and death rate? Or perhaps death rate correlates more closely with population density? Or does life expectancy rise with average income, rather than with physicians per thousand?

Writing programs showed teachers what steps it took to teach a concept—a bit like taking Latin to learn humility and discipline.

Think of the questions your students could ask themselves as they get truly interested in the subject matter of social studies. How would they look at historical databases of elections and population of the United States? How about linking significant inventions with death rates? Until now, only professional historians (and insurance adjusters) have had the time to think about these things. Historians do it because somewhere, somehow, they found out that learning was worth the trouble.

If you make independent thinking of this nature less trouble for your students, will they become as intrigued by history and social patterns as you are? How intrigued by history are they now?

You might feel that what I'm talking about is OK for the gifted students who want to do independent study, and perhaps some classes in the high school, but what about the average teacher in the elementary or middle grades? Does it make sense to spend all that money on computers?

Teaching More, Cheaper

How much are we talking about anyway? According to the *Wall Street Journal,* schools have spent $2 billion on computers so far. That's for 1.7 million computers, which gives a ratio of one computer for about every 38 students. Schools also spent $153 million on software last year.

Let's get it down to a more local level. I live in a state that is doing a lot in the field of computers in education. Local universities were among the first to offer advanced degrees in Computers in Education. Many teachers attended these programs and have gone back to their school districts eager to get computers into the schools.

Yet, according to the figures from a typical school district in this state (compiled by William Lamon of the University of Oregon), computer hardware (computers, monitors, printers) accounted for only 0.24 percent of a total budget of $39 million in 1987. That's less than one-fourth of 1 percent. The cost of software came to 0.09 percent and the amount devoted to training teachers to use all this was less than one-hundredth of 1 percent of the total school budget.

Basically, despite the dollars people may talk about in the budget meetings as "useless frills," 99.6 percent of the "supplies" money goes for textbooks, paper, glue, and other traditional materials. Just 0.4 percent goes for computers.

Even so, do we get our money's worth out of the few dollars we do spend? Cost-effectiveness is a rather hard thing to measure in education, but Hawley, Fletcher, and Piele have come up with a measure of sorts. They took third and fifth graders and taught them math utilizing a computer, and then compared their achievement to that of similar students in the standard curriculum. It cost 27 cents more per day, per student, to use the computer. This would seem to indicate that computers cost more. But the children who used a computer gained more "grade levels" during the six-month study than the others. Using this criterion, the computer-aided cost of producing each "month" of achievement gain was 40 percent less

with computers than without. So perhaps the small expense for the computers can be justified as being good for kids—and cheaper.

Still, if there's only one computer for every 40 students, what can you do with the things? Many schools felt satisfied to put their computers all in one room (a "computer lab"); they thought that did it. But what does that do for teachers? The Computer Fanatics took over that room most of the day, and the rest of the time students were in there, working or playing games. If an ordinary teacher wanted to go in, the "experts" (who were all of 13 years old) would just kick sand in the face of the Computer Wimp. This will discourage almost anyone from venturing into the lab again.

Some schools buy the machines and figure that's enough. They budget so much for computers and, if they're more farsighted than most, maybe half as much for software. Typically, teacher training gets less than three percent of the money—when it should be about 40 percent.

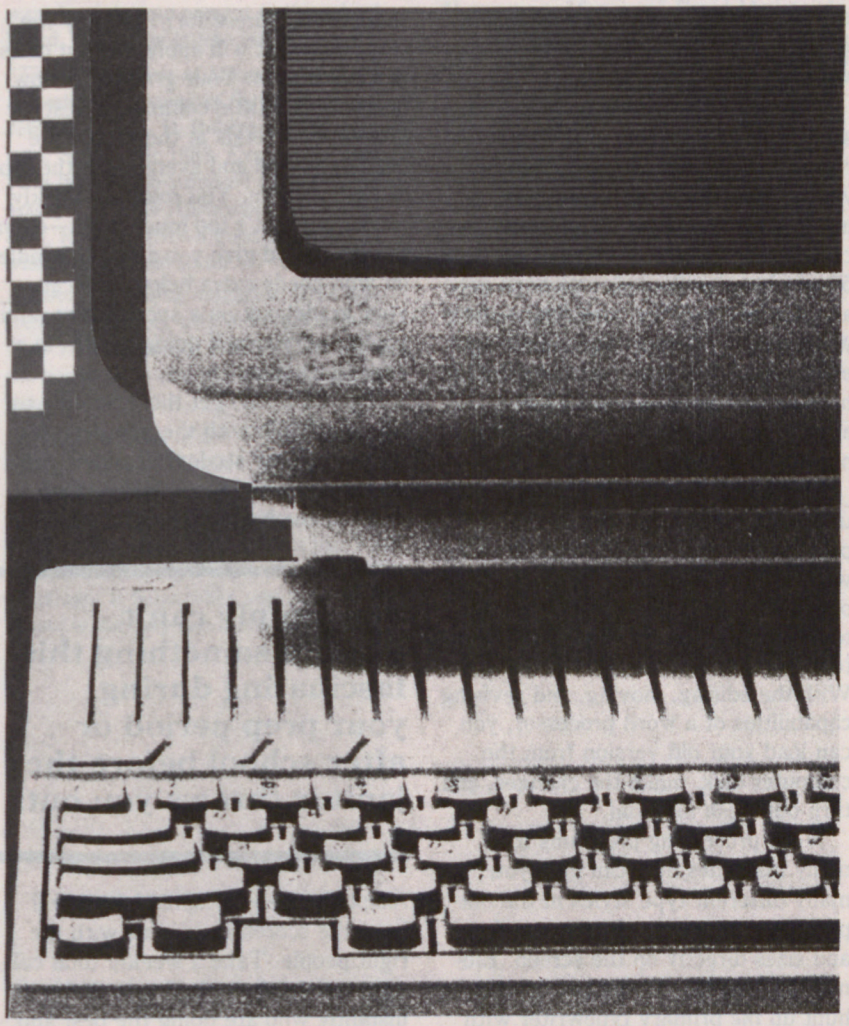
What's in It for You?

What are you going to do about the situation? Should you do anything?

I know you are concerned about good education—otherwise you wouldn't be reading this publication. You have persistence and are open to new ideas (you've read this far). So you're one of the leading teachers in your school—can computers make you an even better teacher?

Maybe not—but they can make you a teacher who's less tired at the end of the day and less subject to burnout. And you can make *yourself* a better teacher, given a little help with some of the things that detract from your creative abilities.

Let's face it: the time spent in the classroom interacting with students is golden for you. That's why you're in the business (it certainly isn't for the money and prestige). There are things that take away from this time, and a lot of them can be alleviated by using a computer. Let's assume, for the sake of this exploration, that you have a computer in your own classroom, available for use when necessary. I know that's rather farfetched, but let's just pretend the school district wants you to be able to do the best job possible.



One of the most valuable programs for the computer, in industry and even more in education, is a word processor. This is a program that makes the computer into a typewriter—but a typewriter for people who are creative and not perfect. The simplest advantage is that no mistake is final, and you can turn out perfectly typed copy. With any word processing program, you can correct errors, insert things you forgot, remove things you really shouldn't have written, and get a final copy without strikeovers, crossouts, or uneven typing. But you can also *improve* all your writing by being able to rewrite without pain.

For all of you who sweated through term papers, for all of you English Department people teaching writing, and for anyone who has ever filled out an expense account, it is clear that the thing that improves your writing better than anything else is rewriting. But I remember those mornings when the term paper was due at 8 and it was already 6:15, and I was composing at the typewriter as I reached astounding typing speeds (assuming medieval French spellings of common words were acceptable)—and never had the time to rewrite anything. I didn't do too badly, but I know I could have done better. What about your students? Do they turn in their first copy—neat and in ink?

With a word processor, you might actually print out only your seventeenth version. When you say to yourself, "On second thought...." (or third), you can make the changes extremely easily. If you print out the paper and

see a mistake, do you have to retype it? No! Make the changes and let the computer retype it for you.

The concept of retyping alone may save you years of your teaching career. Think about all those dittoes you've typed over the years. Assuming the ditto machine doesn't badly crease your master, it works for about 50 good copies. You can perhaps get another 50 out of it if you want to help your students prepare for middle-age eyestrain. What about next year? You have to retype the master all over again, because the ink will have dried out over the summer.

If your school district allows you to use a Xerox copier, retyping isn't the problem—originality is. Suppose you want to make revisions in a handout or produce six different versions of a test to keep adjacent rows from being too liberal in their eye-movements. With the editing, moving, and revising capabilities of a word processor, you can load your old version from the computer disk, make the changes, and turn out fresh material.

Word processing programs for many machines now can give you many different type styles in the output. Some show the different styles and sizes directly on the screen. Elementary teachers no longer have to hunt up *the* primary typewriter with the large type—any computer and printer will work. On handouts and tests the word processor lets you emphasize certain sections to make communication more effective. And programs that do different type sizes allow visually handicapped students to learn to type and read the screen in letters two inches high.

Those databases the social studies teachers can use could just as easily keep track of your inventory—and what if you add extra information on each inventory item? When I teach science, I put in where an item is kept and what lesson or lab it's used in. Then when I print out everything used in a particular lesson, I know how much I have, how much I should have, and where to find it.

Besides word processing and databases, the third major program of industry is the spreadsheet. What can teachers use these for? Probably the first thing that will apply to most of us is a gradebook. Your gradebook now probably has little columns of test scores, with totals at the end of the grading period and averages at the top of each column. You *could* do weekly totals, but that's too much work—even though they'd give you a better handle on who needs extra help. Duplicate your gradebook on a spreadsheet, and you'll find yourself doing grades in a very short time.

But you'll also get those weekly totals and fiddle with the numbers besides. If a new student is added part way through the term, just put the name at the bottom of the list and realphabetize—the spreadsheet will keep the scores associated with the right people. Take a weekly total column and "alphabetize" it to find out instantly who are doing the best and which students need more help.

You simply can't explore something this fascinating during your prep period or after school before the janitor throws you out.

A spreadsheet will not only save you time in doing grades, but help you get closer to your students. You could do it without the computer, but not if you're one of those who believes in frills such as eating, sleeping, or family life.

To do all these things takes the opportunity to use a computer and the time to play with it. You have to be able to take the computer home with you after school and on weekends, at least at the start. You may object to taking the extra time, and the school may balk at letting school equipment go home, but there just isn't any substitute for it. Computers, at the beginning stages, are great time-sponges. You simply can't explore something this fascinating during your prep period or after school before the janitor kicks you out. The school's insurance policy can cover the computer with very little change (your own homeowner's policy probably will not cover the school's equipment, however), and the district will get better educated teachers, more effective teachers, and a happier staff with very little cost.

The cost may come later, however, when you find out that you need a computer in your classroom all the time. You'll also get very tired of carting that computer home after the second month and look into purchasing your own to save your sanity and back. If you get the same model as at school, you can print out everything there the next morning.

Are the schools getting their money's worth out of computers? Not really. Kids have a hard time learning to read if they never see their role models reading; homes without books generally produce families without readers. Your students need to see teachers using computers as a normal part of work. The school districts need to invest money in training the teachers, need to allow them freer access at home and at school, and need simply to get enough computers to make their use easy for teachers, to allow them to to their best job.

Are the right people using computers now? Some are, but almost all of us can do a better job if we use a device that can free our creativity.

Humans, especially teachers, are creative. Let computers handle the boring stuff and let us get on with doing what we excel in—teaching.

For Further Reading

Characteristics of Effective Computer Inservice Programs. B.M. Stecher and R. Solorzano. Report for Educational Testing Service. Utilizing the top eight of 50 highly ranked inservice programs, the authors give a guide to what really works to make inservice sessions worth the time spent.

"Claims of Improved Academic Performance—The Questions You Should Ask." Richard Alan Smith. *The Computing Teacher,* May 1988. When the salesperson calls, keep this article and its list of 13 critical questions handy to keep the seller honest and your own enthusiasm in check.

Classroom Computer Learning magazine.

Turn to this resource for up-to-date reviews of the latest software and teaching techniques.

*The Computing Teache*r. David Moursund, editor. For the past 15 years, this one magazine has consistently provided neat ideas for using computers in the schools. The articles are mostly authored by classroom teachers who really know what works and what doesn't. The editorials keep you up on trends that will be hitting the schools, and research columns let you justify what you want to do.

"Costs, Effects, and Utility of Microcomputer-Assisted Instruction." David E. Hawley, J. Dexter Fletcher, and Philip K. Piele. Center for Advanced Technology in Education, Eugene, Oregon, November 1986. This publication, available from ERIC-/CEM clearinghouses, details a very rigorous analysis of just how cost-effective computers and current programs can be in third and fifth grade classrooms. If you want hard data to present to the school board, this is the one to use.

"The Effectiveness of Microcomputers in Education: A Review of the Research from 1980-1987." M. D. Roblyer. *THE* (see below), September 1988. Excerpting from a 1988 book he co-authored (*The Effectiveness of Computer Applicaions for Instruction*), Roblyer gives a good summary of what's been done so far.

Electronic Learning magazine. This is a slicker magazine, with more advertising, than *The Computing Teacher.* The articles are generally useful to a continuing program.

Instructional Uses of School Computers, Issues 1-6. Henry J. Becker. Center for Social Organization of Schools, Johns Hopkins University. Using the results of a 1985 nationwide survey, Becker details just what schools were doing with computers four years ago. It helps when you think your school is the only one that's behind.

"Long-range Planning." David Moursund. *The Computing Teacher,* April and June 1987. These two articles should be read to avoid the pitfalls of rushing into computer buying without any direction.

The Status of Microcomputers in Oregon Public Schools. William E. Lamon and J.W. Sanner. Oregon Department of Education. Your state may have a similar detailed analysis of school district budgets, what place computers have in them, and what needs to be done.

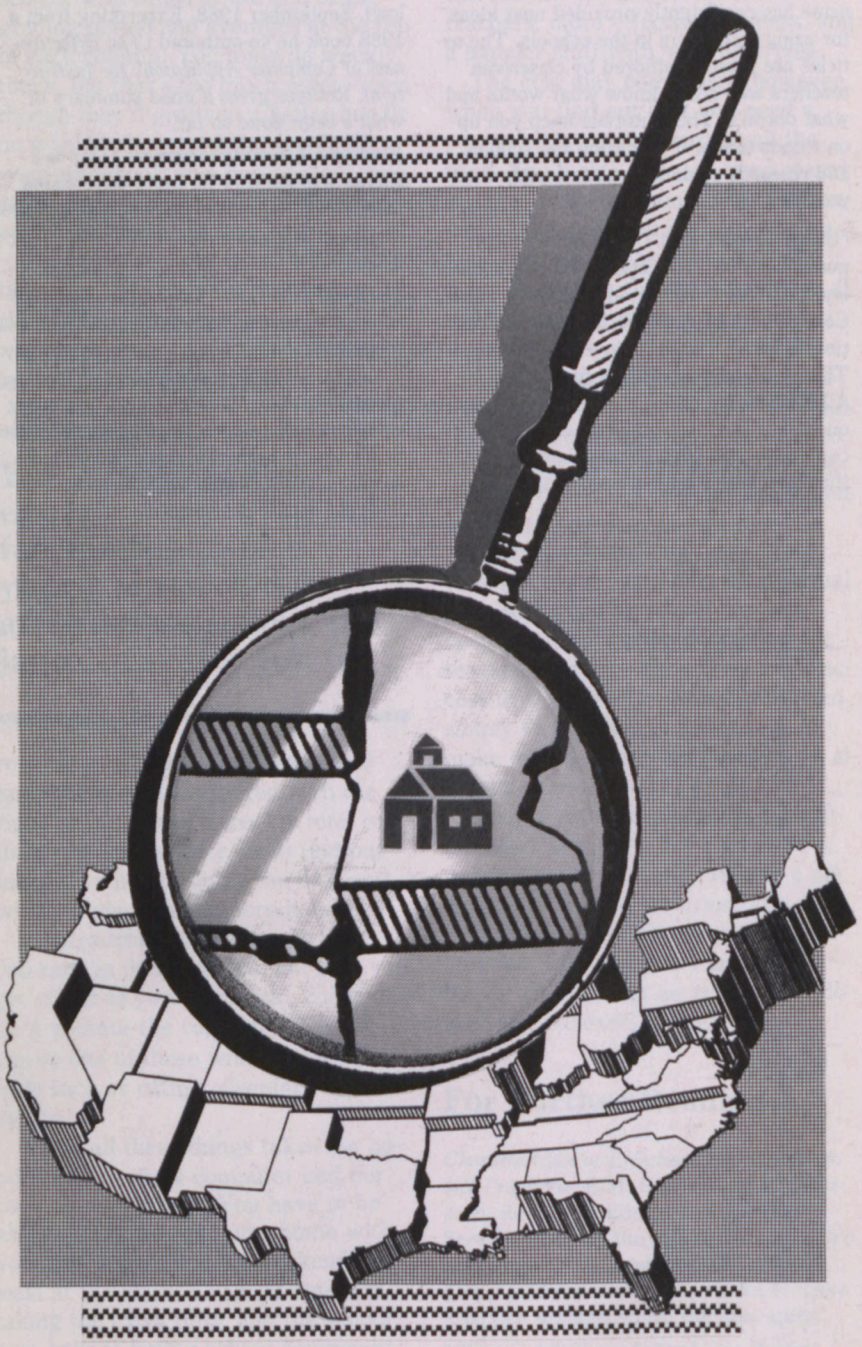
THE (Technological Horizons in Education). Besides a lot of ads, this contains the serious research articles you need to justify programs and purchases to school boards.

"When Computers Are Bad for Kids." Gary Clark. *The Computing Teacher,* May 1985. This article, excerpted from Clark's *Computers and Young Minds,* lists a dozen cautions we should all keep in mind when we think computers can do everything (well, maybe not make toast).

The New National Assessment: What It Can and Cannot Do

BY DANIEL KORETZ

Can the NAEP tell us which states have the best schools—and why? Or will using it for such comparisons destroy one of the few reliable measures of achievement we still have left?



Accountability is the watchword of the reform movement, and standardized achievement testing is this decade's mechanism of choice for holding schools accountable. As Chris Pipho, director of the Information Clearinghouse of the Education Commission of the States, has noted:

> Nearly every large education reform effort of the past few years has either mandated a new form of testing or expanded uses of existing testing. From career ladder plans to merit school proposals, these reforms will tie increased funding in part to test scores.

This emphasis on testing is not restricted to educational policymakers.

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The press and the public also are focusing on test scores as the preeminent measure of school effectiveness. This enthusiasm for test scores has longstanding historical precedents, but it far exceeds in magnitude anything seen in this nation since World War II.

The National Assessment of Educational Progress (NAEP) has lately been a primary focus of this enthusiasm for testing. The NAEP is a federally funded testing program, now ending its second decade, that collects information about the knowledge and

skills of American students in a variety of subject areas. The NAEP tests a large representative sample of students of three ages—9, 13, and 17—as well as other students in grades 4, 8, and 11. The assessments are conducted on a rotating basis, so that each subject area is tested at intervals of several years.

The original purposes of the NAEP were limited. The NAEP was designed to serve as an indicator of the educational achievement of U.S. youth—much as Gross National Product is intended an an indicator of a nation's economy. The NAEP was meant to provide a broad picture of educational achievement in the nation as a whole and among a limited number of large groups of students and schools—in the major geographic regions, for example, and several ethnic groups. It was not intended, however, to compare states or localities, and it was designed in such a way that scores for individual students would be neither easy to obtain nor especially meaningful.

Now the functions of the NAEP are changing, in large part because of the current push for test-based accountability. In 1987, the U.S. Department of Education released the influential Alexander-James report (named after the panel's cochairs, then Tennessee Governor Lamar Alexander and H. Thomas James), which called for an increase in the sample size of the NAEP to permit statistically reliable comparisons among states. (A cogent rejoinder by the National Academy of Education, which received far less attention than the main report even though it was bound in the same volume, argues that the benefits from the proposed change would be fewer, and the costs greater, than the proponents maintained.) The justification for the Alexander-James proposal was accountability:

> Today state and local administrators are encountering rising public demand for thorough information on the quality of their schools, allowing comparison with data from other states and districts and with their own historical records. Responding to calls for greater accountability, state officials have increasingly turned to the national assessment for assistance.

In its recent omnibus reauthorization of federal education programs, the Congress explicitly authorized the expansion of the NAEP proposed in the Alexander-James report, although with important constraints. As I write, state education agencies are deliberating whether to participate in the new, expanded NAEP; it appears likely that more than 20 will.

But will the new NAEP provide substantively meaningful comparisons among states? Will it tell us about differences among states in "the quality of our schools"? Will it provide a reasonable basis for holding educational systems accountable?

The original NAEP was so designed that scores for individual students would not be easy to obtain or especially meaningful.

In general, I believe, the answer is no. The new NAEP will not provide the sorts of accountability-oriented information its proponents expect. Moreover, to whatever extent the new NAEP becomes an accountability measure, its value as an *indicator* of educational achievement may be eroded.

This is not to disparage the NAEP. The old NAEP has proven tremendously valuable as an indicator of educational achievement in the nation as a whole. It has had a number of extremely important advantages over other measures that have been used in that role. For example, unlike the Scholastic Aptitude Test (SAT)—inappropriately used as a surrogate achievement measure in former Secretary of Education Bennett's "wall charts" of state comparisons—the NAEP is designed to measure actual achievement, not to predict subsequent educational performance. Also unlike the SAT, the NAEP is administered to a representative sample of the nation's students and assesses performance in a fairly broad range of subject areas.

In addition, the NAEP has a largely unsullied reputation. Within the last year or so, it has become painfully apparent to many educators—and, increasingly, to the press and public as well—that the emphasis on raising test scores has led to various kinds of monkey business in achievement testing of the sort mandated by states and school districts for all students in designated grades. The improper practices have included questionable reporting of scores, excessive teaching to the test, and even outright cheating. The NAEP has been untouched by suspicion of such practices—at least so far.

Given all these advantages, why will the new NAEP fall short of expectations? To understand the reasons, it is necessary to understand what standardized tests are, how the meaning of test scores hinges on the uses to which tests are put, and how the NAEP will be altered as its use is changed.

Tests and Achievement

Test scores are *not* synonymous with achievement, even though people often speak—and, unfortunately, act—as if they were.

Put simply, an achievement test is typically a brief and incomplete proxy for a more comprehensive, but less practical, assessment of some domain of achievement. A test's value as a proxy depends on the confidence with which you can generalize from a score on the test to a corresponding degree of mastery of the broader domain of interest. The firmness of that generalization depends, in part, on the quality of the test. But it also depends on how the test is used. Even an excellent test will be misleading if it is used inappropriately, or if students are prepared for it in inappropriate ways.

One consequence of the incomplete nature of tests is that different tests can provide markedly different results. These differences sometimes affect even the most basic conclusions

about achievement. For example, as virtually everyone now agrees, the achievement of elementary and especially secondary students declined considerably during the 1960s and part of the 1970s. This decline appeared in the results of a great many tests. Yet even that finding had exceptions: overall reading scores did not decline on the NAEP, for example, and scores on the American College Testing program's natural sciences test remained constant. Other inconsistencies among tests also appeared. The relative size of the decline among subject areas, for example, varied markedly from one test battery to another.

Another consequence of the incompleteness of tests is that the link between test scores and achievement can be undermined. In other words, test scores can be corrupted. To take a simple example, say you want to assess a high school senior's vocabulary. Even relatively inarticulate 17-year-olds can recognize thousands of words. To be practical, however, a vocabulary test must be brief. It can use only a very small sample of words that 17-year-olds might or might not have learned.

If these few words are a good, representative sample, you might be confident that students who score high actually have better vocabularies than those who score poorly. But what if students' instruction has emphasized the few words likely to appear on the test? Students' scores will skyrocket, but their mastery of the thousands of words that the test is intended to reflect—that is, their actual working vocabulary—will not have improved appreciably.

Test preparation doesn't have to be so egregious as actual teaching of the test's specific content to weaken the link between scores and achievement. Any teaching or test preparation that makes the tasks on the test substantially nonrepresentative of the domains of achievement that are of interest will suffice.

For example, in one city, some secondary school mathematics teachers responded to pressure to raise scores on a specific test by dropping or de-emphasizing untested portions of the curriculum. Scores accordingly increased more than they would have on a broader test that more fully covered the curriculum. In short, mathematics test scores increased more than mathematics achievement. In the same city, some elementary school teachers responded to the pressure to raise math test scores by taking time away from untested subjects, primarily science and social studies, to devote more time to tested material in mathematics. At both levels, increases in mathematics test scores partly reflected a transfer of achievement from untested to tested components of the curriculum, rather than purely a growth in achievement.

To the extent the new NAEP becomes a measure of accountability, its value as an indicator of achievement may be eroded.

Some readers may argue that certain forms of test preparation or "teaching to the test" are desirable. Of course. If a test reveals that students in a given class have trouble with division, it is only appropriate to strengthen instruction in division. The problem arises with forms of teaching to the test that produce gains in scores that do not generalize to other measures of achievement in that particular domain.

This is anything but an abstract concern, for performance on tests sometimes shows a startling lack of generalization. To give just one example, in the mid-1970s, one mid-Atlantic state included addition and subtraction problems in both vertical and horizontal formats in its statewide testing program for grade 7. Had the state used only the vertical format, the results would have been encouraging, because a large majority of students got those items right. The horizontal format, however, provided one test of generalization, and the results were sobering: roughly 40 percent fewer students could answer the questions when presented in that format.

Diagnosis, Assessment, And Accountability

During the 1950s and 1960s, schools used standardized achievement tests primarily to monitor the progress of individual students, to diagnose learning problems, and to place students accordingly. Secondarily, districts sometimes used test scores to evaluate curricula. With few exceptions, the impact of test scores was limited, and their influence on classroom instruction was typically slight.

The uses of achievement tests, however, have undergone dramatic changes over the past two decades. One such change was the growing use of tests to monitor, not individual children, but rather educational systems—programs, schools, entire districts, even states. This use of tests for large-scale monitoring is now conventionally called "assessment."

Another change was a radical increase in the consequences of test scores. Standardized achievement testing has become a high-stakes enterprise in which individuals throughout the educational system—students, teachers, building administrators, and even district and state superintendents—have ample reason to worry about scores. The most important aspect of this shift may have been the spread of minimum-competency tests linked to promotion or graduation, but the consequences of test scores now extend far beyond those. In a number of states, for example, school funding is linked in part to test scores. Moreover, the formal and explicit consequences of test scores are now only the tip of the iceberg. Educators have described many consequences that are less apparent, such as community pressure to raise scores and the use of students' scores to evaluate both teachers and principals.

As large-scale achievement tests increasingly came to be used as accountability measures—prods to higher performance—as well as mere reflectors or indicators, many educators and

policymakers have assumed that a single test could serve both functions. For example, proponents of minimum competency testing have often pointed to increases in the proportion of students passing the minimum competency tests as evidence that this program is raising achievement.

In fact, however, most tests are poorly suited to serving in this double capacity. The reason should be clear in the light of the above discussion of the differences between achievement and test scores. Once the consequences of a given test are made important enough, instruction will be tailored to increase scores on that particular test. When the resulting teaching to the test takes undesirable forms, as often it will, scores on that test will increase more than achievement does. Then only other, independent measures of achievement will be trustworthy indicators of improvement.

The NAEP will be no different from any other test in this regard: if NAEP scores become so important to educators and policymakers that classroom instruction is tailored too closely to the NAEP, its value as an indicator of achievement will be threatened.

The NAEP as Indicator Of Achievement

In its old role as an indicator of achievement patterns, the NAEP had several important strengths. It was only a measuring tool; no one asked it to double as an accountability measure. That is one of the primary reasons why the NAEP's reputation remains unsullied. No one bothered teaching to the NAEP, and so everyone could believe the results.

Another strength of the NAEP has been that its purpose—providing scores only for large groups of students, (girls, boys, Blacks, whites), not for individuals—permits the coverage of the NAEP to be considerably broader than that of a traditional achievement test. Because individual students' scores are of little consequence, the NAEP has traditionally consisted of far more test items than any individual student could work through in the alloted time. Students are given planned subsets of the total set of items. (This sort of "matrix" sampling is used in a number of state assessment programs as well.)

Nonetheless, the NAEP has a number of important weaknesses, even in its traditional, limited role as an indicator of national achievement. Perhaps most important, the NAEP has relied very heavily on multiple-choice questions. This is efficient—it nets a lot of information at relatively little cost—but it means that there are large and important aspects of understanding and performance that the NAEP does not assess. This need not be so. The British national assessment routinely goes far beyond the multiple-choice format, and the NAEP also has done so in selected instances.

Once the consequences of a given test are made important enough, instruction will be tailored to increase scores on that test.

Another important limitation is that the NAEP is designed to indicate the learning of the entire range of students. That lessens its usefulness for other purposes—for example, for gauging trends among the high-achieving students who represent the future supply of scientists, engineers, and other highly trained groups.

Still another limitation of the NAEP is that it is just a test. This statement is less redundant than it seems. Policymakers have reported NAEP results as if they were *the* answer to questions about achievement—forgetting that it's just a single test. In constructing the NAEP, as in constructing any test, choices have to be made about the content of each assessment and about the relative emphasis to be given to different areas—say, problem solving versus arithmetic computation in the mathematics assessment. These choices represent the results of considerable discussion among experts in the field, but other decisions also would have been defensible. Accordingly, the NAEP has sometimes produced results inconsistent with those of other tests. This is less a criticism of the NAEP than an acknowledgment of an inevitable limitation of all tests to which the NAEP cannot be made immune. We will come back to this issue in discussing the new NAEP.

Using the NAEP For State Comparisons

Whether the NAEP will remain uncorrupted when used for state comparisons is a matter of speculation. Fortunately, in authorizing the use of NAEP for state comparisons, the Congress stipulated a very important restriction:

> The use of National Assessment test items and test data employed in the...program [of state comparisons]...to rank, compare, or otherwise evaluate individual students, schools, or school districts is prohibited.

This constraint, we can hope, will prevent some of the stronger incentives to teach to the NAEP in ways that would undermine its value as an indicator of achievement. Moreover, the NAEP's matrix sampling might offer some additional protection, particularly if it is used to further expand the range and format of items used. On the other hand, states exert an increasing amount of control over educational policy and practice, and if the NAEP comes to loom large enough in the public's mind as a barometer of how well their states' systems are doing, undesirable teaching to the test may result.

Even if the NAEP is not corrupted by this new use, however, there are important limitations to the information it will yield. To explain these limitations, it is necessary to distinguish between information about states' levels of achievement and information about the *causes* of differences among states. The new NAEP is better suited to discerning differences among states than to explaining them, but its usefulness for the former also is circumscribed in an important way.

The reason NAEP is limited in providing information about differences

among states is, again, that it is only a test. The answers it provides about differences among states form only one of many reasonable alternatives. State administrations of the NAEP will tell us which states outscore others on the content tested by the NAEP, but that is not the same, by a long shot, as telling us which states have higher levels of achievement in areas as broad as mathematics or history/geography. This is especially true in the higher grades, for there are major differences among states' secondary school curricula. But even in grade 4, differences in curriculum content, coupled with variations in the sequencing of instruction, may well be sufficient to affect states' rankings. True, the highest-ranking states would be unlikely to fall below the lowest-ranking states because of decisions about test content, but, then again, we generally won't need the NAEP to distinguish the highest-achieving from the lowest-achieving states.

This limitation may be somewhat beside the point, however, because few people, in my experience, want state comparisons of NAEP scores simply to rank states in terms of achievement. Most people want these comparisons in order to draw inferences about why scores vary among states—in particular, inferences about the quality of schools.

This is one reason some advocates of state comparisons want to present scores along with contextual information such as demographic data. Ideally, this would permit states to be compared with others that have similar populations. Variation among their scores would then reflect differences primarily in educational policy and practice.

The NAEP, however, simply will not tell us much about the relative quality of schools. To be more precise: differences among states in scores will sometimes reflect the quality of schools and sometimes other factors, and generally no one will know which. To ignore this is to risk substantially misjudging—and misdirecting—educational policy and practice.

The new NAEP will fall short in this respect partly because it is not accompanied by adequate information about many of the important noneducational determinants of test scores. Poverty provides only one of many possible examples. Several aspects of poverty affect achievement in school. The poverty of individual students influences test scores. So does the concentration of poverty within schools. Indeed, there is some evidence that nonpoor students in schools with high concentrations of impoverished students score well below impoverished students in schools where they are not concentrated. The NAEP, however, will not obtain the information needed to take these influences into account. The additional information that can be obtained relatively easily—for example, the child poverty rate for an entire community—is an inadequate substitute.

Differences among states in scores will sometimes reflect the quality of schools—and sometimes other factors.

Another reason the NAEP will not tell us much about the relative quality of schools is that it is a cross-sectional database. That is, it contains information about students at only one point in time. This undermines inferences about causes in several ways. Perhaps most important, the NAEP, like all cross-sectional data, suffers from the chicken-and-egg problem: do high scores cause the things that accompany them, or vice-versa? Take the example of an NAEP math test for 17-year-olds. Those who've taken more (and more advanced) courses score higher. No surprise. But does the extra coursework cause the higher scores, or do students with a history of success in mathematics, which is reflected in their NAEP scores, elect to take more advanced mathematics courses?

The answer, of course, is that both are true. Part of the observed relationship is the effect of high achievement on course selection—that is, the tendency of high-achieving students to choose more rigorous coursework. Thus, studies have frequently shown that coursework elected by high-achieving students is associated with higher scores, not only in the same subject area, but also in many others. For example, enrollment in foreign language courses predicts test score gains in English-language vocabulary and reading, scores on the College Board English and U.S. history achievement tests, overall grade-12 GPA, and gains in mathematics test scores. Indeed, one study found that foreign-language study is a much better predictor of performance on both the SAT verbal exam and the College Board English achievement test (controlling for prior achievement and background) than is completion of a core curriculum in English. And foreign language coursework is by no means the only example.

The cross-sectional nature of NAEP data poses an additional problem, for, in most instances, a student's performance at any one time reflects, not only the educational experiences of that year, but also that student's entire educational history. The NAEP, however, includes no information at all about students' prior educational experiences. This could easily make causal inferences from the NAEP misleading. For example, suppose a given state has a very strong instructional program in a given subject through grade 7 but has instituted a new, mildly detrimental program in eighth grade and above. Its eighth-grade NAEP scores may well be fine despite the undesirable policies directly affecting that grade.

A final reason the NAEP is not appropriate for drawing inferences about educational effectiveness appears technical and arcane but is, in fact, very important. The NAEP is not designed to distinguish between variation at different levels of aggregation (individual students, classrooms, schools, districts, and states). The correlates of educational practices, however, can be radically different at different levels. For example, in a comparison between school districts, one might find that a poorer district,

with lower-scoring students, had larger class sizes than a nearby wealthier and higher-scoring district. Class size would correlate negatively with student achievement. Within the wealthier district, however, one might find class size correlating positively with achievement because the district's policy was to assign lower-scoring students to smaller classes for remedial purposes. NAEP data would not be able to distinguish the two situations and therefore could lead to grossly misleading conclusions about the effects of class size.

Options for the Future

Given these considerations, it seems pointless to try to fit the NAEP into the accountability role for which it is so poorly suited. How, then, should the NAEP be used?

If policymakers, the public, and educators are willing to accept two of the caveats explained above—that the NAEP can give us only one, incomplete view of states' relative achievement, and that it cannot be relied upon to explain those differences—state comparisons of NAEP scores might be useful. After all, a state that scores relatively low on the NAEP has a serious problem that should be addressed, whatever its causes.

At the same time, using the NAEP to obtain state comparisons will impose serious costs. One is the financial cost—millions of dollars per assessment—of expanding the NAEP sample sufficiently to obtain statistically reliable comparisons. A second cost will be the burden on participants. A third cost is the potential degradation of the NAEP's value as an unsullied indicator of the nation's performance. One has to ask whether the benefits are worth these costs, particularly because the new NAEP will offer so much less information than its proponents hope.

If we are willing to provide the millions of extra dollars that the new NAEP will require, perhaps we should instead enrich the NAEP to give us a much broader and deeper picture of the condition of educational achievement. This could be done in many ways—for example, increasing the breadth and depth of the assessment, increasing the use of expensive test formats other than multiple choice, and adding periodic supplementary assessments targeted toward groups of students of particular interest.

Rather than threaten the NAEP in the vain pursuit of another form of test-based accountability, let's protect and strengthen it.

For Further Reading

"Innovative Forms of Assessment: A United Kingdom Perspective." Claire Burstall. *Educational Measurement: Issues and Practice*, Spring 1986. This brief description of the British national assessment, written in a nontechnical style, is a good source of ideas about how NAEP—and our educational testing generally—might be enriched.

The Nation's Report Card: Improving the Assessment of Student Achievement. U.S. Department of Education, 1987. This short volume has two parts: the Alexander-James report, recommending the expansion of the NAEP to permit state comparisons, and a critique by the National Academy of Education.

"The Real Test Bias: Influences of Testing on Teaching and Learning." Norman Fredericksen. *American Psychologist*, March 1984. Fredericksen gives one of the classic explanations of the limitations of multiple-choice tests.

"Validity, Vaudeville, and Values: A Short History of Social Concerns over Standardized Testing." Walt Haney. *American Psychologist,* October 1981. This brief and trenchant history of test use in the United States and of the controversies it has spawned can be very helpful in putting the current enthusiasm for standardized tests into perspective.

'Those' Children Are Ours: Moving Toward Community

BY PATRICIA GÁNDARA

If families make the greatest difference in how children do in school, how can schools help students who might otherwise fail? Redefining schools as a community effort is the essential first step.

America is experiencing an unpublicized crisis in education. It is not the crisis of mediocrity of which we were warned in 1983, nor is it a failure to keep up academically with the Japanese or the Soviets. In reality, our brightest students are still competitive with any other country's brightest students. America's crisis results from our forgetting, in our headlong race for "excellence," that a significant portion of our children are not on the excellence bandwagon—not, in fact, on any bandwagon at all. The education reform movement has ignored them altogether.

Patricia Gándara, currently a professor of education at California State University at Sacramento, was until recently director of education research for the Assembly Office of the California Legislature and commissioner of postsecondary education for the State of California. Her research interests have included causes of success among minority students, bilingual education, and the year-round school.

Nearly a quarter of America's children are on an educational path leading nowhere. While test scores appear to be on the rise all over the country, a closer look at the figures reveals that the least successful students are actually losing ground: The gap between their skills and performance and those of their peers is growing wider. These are the children of the poor, who coincidentally are also often ethnic minorities.

The failure of the reform movement to make any positive difference for these children has raised some hard questions: Can schools make a difference for poor and minority children—or is their school performance too closely bound to home and neighborhood experiences? How do some poor, minority parents help their children overcome barriers to school success? What role can a community play in securing these students' educational future?

We know from decades of research that families are critically important to the academic success of all children. Studies have shown that, for most children, the schools they attend make less difference to eventual academic attainment than the families from which they come. Given this evidence, the conclusion would seem to be that schools cannot make the important difference for children's life chances,

that this must be the work of parents. But parents are not equally equipped to complement the school curriculum within their own homes. What occurs in homes that provides an advantage to some children? What proves a disadvantage to others? And are these factors changeable, given our social and economic structure?

The first question to address is: Why are the effects of family so powerful? Part of the answer is that parents are a child's first educators. Half of children's mature intellect is formed at home before they even reach school. So are cultural patterns, notions of appropriate behavior, and basic values. And to the extent that these differ from the expectations of the school, the child will be at risk for school problems.

If a child, for instance, has learned behavioral patterns such as avoiding eye-contact with the teacher or being reluctant to answer questions in class, or if the child speaks a different language, the barriers between student and teacher will be high, and the educational prognosis will be dim. Research has demonstrated that even the most well-meaning teachers tend to have lower expectations of the ability of minority children, call upon them less in class, and reinforce their responses less than those of majority culture children. Hence, among the critical, and largely immutable, things that children bring with them from home are their ethnicity, their native languages, and their social status. But this only partly explains the effect of family on school performance.

Families also differ with respect to basic resources, both physical and psychological. Some homes reinforce the school curriculum daily, through the array of ideas and possibilities presented in the normal course of middle and upper-middle class family life. Access to things that enhance academic learning (computers, educational toys) also generally increases with income and education.

Even more important, however, are the psychological resources of middle-class and majority-culture parents, who tend to see the parent-school relationship in employer-employee terms. These parents *expect* the school to educate their children. If it fails, they will demand changes. Poor, minority parents more often *hope* the school will educate their children well, but if it fails, they are less likely to know what to do. Nor may these parents be in a position to evaluate the quality of education their children receive.

But the most important psychological resource of middle class parents is their conviction that they and their children rightfully belong in the social order—and that they have the authority to make changes. Poor parents and minority parents, perceiving themselves as marginal to the system, often feel that they lack such authority.

A school does not become part of a community by sending notes home, even carefully translated into the home language.

The Society's Owners

Certainly the greatest advantage an individual can have in any society is the power that accompanies a sense of belonging and a familiarity with the society's unwritten codes. Children from the middle class and from the majority culture are likely to grow up with a belief in their own power to affect their environment. They learn this from parents who "get things done" by knowing the right people, recognizing the right things to say, and understanding the system well enough to know how to make it work for them. These children act out powerful behaviors in school, where they are rewarded for demonstrating leadership skills, and where they will continue to fulfill society's prophecy for them.

A whole body of research has grown out of the study of "locus of control"—of whether people believe they're in control of their own lives. Middle-income students tend to believe their future is in their own hands. Lower-income students more often see their futures as out of their own control. Lower-income students, say researchers, translate this attitude toward life into counterproductive behaviors like not involving themselves in school or even dropping out.

"Externally locused" behaviors are often considered the product of a "culture" of poverty. They are, rather, responses to the reality of poverty and marginality. People on the margin of society rarely have the opportunity to shape their own lives, and they seldom witness such behaviors within their own environs.

I am reminded of the comments of a friend, a university professor, who suggested he could always tell the difference between the Mexican American students on campus and the university students from Mexico who were just visiting (and who, almost by definition, were middle-class). In terms of physical characteristics the two were indistinguishable, but a few minutes' observation made the differences apparent.

The students from Mexico strode across campus looking as if they belonged there. They didn't hesitate to claim space for themselves in the middle of the cafeteria, or anywhere else an activity was occurring. They had never perceived themselves as second-class citizens.

The Mexican American students, on the other hand, always seemed to huddle in a corner of the room. They didn't stride so much as stoop across campus—carefully staying out of the way of the other students, who "belonged" there. The belief that they are members of the club, invited guests at the banquet, may be the most powerful inheritance of the children of the middle class and the majority culture. Because this is not often possessed by poor and minority parents, they are unable to bequeath it to their children.

The Resources of the Poor

It would be inaccurate, however, to paint a picture of poor and minority families as empty shells, devoid of resources to aid their children. My own work, and that of other researchers,

such as Emmy Werner at the University of California, Davis, offers powerful evidence of the importance of the family in the lives of poor and minority children. These families mediate the experience of the outside world. They make the children feel whole again when others suggest that they are different, and possibly inferior.

Within the family, even if not in the outside world, poor and minority children are able to communicate freely in a common language. Within the family, these children most often find the encouragement and support to go on and succeed even when society's expectations are low. Most of the poor, Mexican American students I studied who were successful in school attributed their desire to succeed less to schools or peers who introduced the notion of striving than to mothers who believed in them and encouraged them unwaveringly.

This faith came most often from some experience within the parents' own families of origin. Their parents, or grandparents, or other family members were perceived as powerful individuals. Always, there was the example of family members who had been able to exercise control over their own lives. Within such families is great untapped power. For other minority families, where even the memory of hope is dim, the solution may lie in links with such hopeful families as these.

Needed: Powerful Families

The urgency and importance of empowering parents becomes greater every day. This country's demographics are changing rapidly. A larger percentage of school-age children is coming from poor and minority homes than ever before. In California, a bellwether state for demographic change throughout the nation, 40 percent of the children in the public schools are now Black or brown. In the nation as a whole, one child out of four lives in poverty. For Black, Mexican, and Puerto Rican children, the figure is closer to one in two. All indications are that circumstances are worsening for the poor. Families at the bottom of the economic ladder hold a smaller share of the country's wealth than they did a decade ago.

Even among the middle class, more and more children face potentially handicapping circumstances. Sixty percent of the children starting school today will have lived in a single-parent home by the time they finish high school—if they finish high school. And some research suggests that the most important variable for the eventual academic and economic success of poor children may be the presence of two parents. Then, too, most mothers of school-age children work outside their homes, so even middle-class mothers find it more and more difficult to give their children's schooling the attention that they have traditionally provided, and upon which schools have depended. More and more children are getting lost between school and home.

The greatest advantage an individual can have in any society is the powerfulness that accompanies a sense of belonging.

How do we make it possible for "disadvantaged" families to produce advantaged students? We start by defining our children as an economic resource—not through the platitudes behind the creation of remedial programs for *those* children, but in a very personal way, acknowledging them as *our* children, our resource. We should choose to change the course of children's lives not because it is a generous thing to do, but because it is a smart thing to do: a good investment of our resources.

In California, school dropout rates hover around 50 percent in areas where Black and brown students are most heavily concentrated. And for Californians today, as for many other states in the coming decades, the future will depend on the economic productivity of these children—our children.

The reason for redefining *those children* as *our children* is not solely to make them more likely objects of our largess, but to help us redefine ourselves as a community of people whose futures are inextricably linked. We have heard much about the need to increase our level of productivity if we are to ensure our country's economic survival. And rightly so, as industry spends an ever-greater amount of time and money to train underskilled and undereducated workers. But less attention has been paid to the enormous social price that must be paid if large numbers of children are allowed to grow up unskilled and unprepared for participation in our social system. Do any of us wish to thrust our progeny into a world made hostile and divided by deprivation and disillusionment?

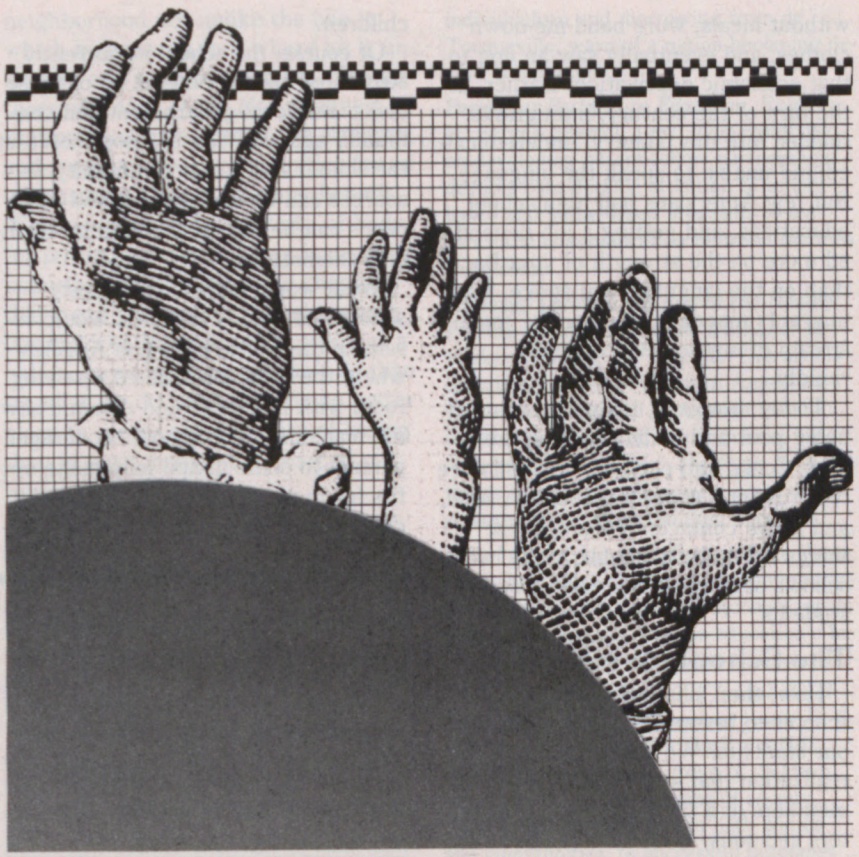
The Old School Community

It is unlikely that poor families alone will be able to change the educational and economic futures of their children, but a community of families *can* change the future of *our* children. Veterans of the school desegregation battles of the 1960s and 1970s will recall that the object of that social policy was not just to integrate classrooms and thus bring powerful parents together with less powerful parents to create change. School desegregation was an attempt to create a community of self-interest that would benefit all students.

Desegregation efforts have evidently succeeded in strengthening schools and school outcomes in some places. But already established communities have been a chief impediment to more widespread success. Parents and families understood the importance of connectedness. They saw the possibility that their children might lose the benefits of that community by reassignment to different schools, and they rejected that reassignment. Unfortunately, too, in many cases, little or no effort was made to forge a new sense of community in re-formed schools. This, we know, is possible. Private schools and parochial schools located great distances from where

children live are frequently characterized by a strong sense of community and common vision. But communities, like other human relationships, require care and nurturing and sharing of both rights and responsibilities. A school does not become part of a community just by sending notes home to parents or inviting them to Open House, even if the notes are carefully translated into the home language.

The question we need to be asking is not, what can poor parents do to aid their children's schooling? but, what can schools and parents do together to create communities that will nurture all our children? Skeptics will immediately interpret this challenge as a suggestion that schools take the lead in solving social ills that are beyond their capabilities and resources. If solutions were limited to tacking on one more social program to the schools' mandate, the skeptics would probably be right. But there are other, better solutions.



The Case for Redefinition

The original purpose of schooling in this country was to transmit a common set of values and information that would allow citizens to participate productively in our social and economic system. Attendance was voluntary, and schools were viewed as supplemental to the instruction that occurred at home, in the community, and in the church.

No doubt because of our democratic traditions and fundamental belief in equal opportunity, public schooling caught on to an extraordinary degree. We began to worry about the social costs of excluding large portions of our youth. We established laws of compulsory attendance.

Required schooling was viewed as a way to avoid large-scale exploitation of an underclass and simultaneously inculcate values that would reduce the likelihood of antisocial behavior. (Of course it was also in some people's interests to keep young people out of the labor market and off the streets—but these, of course, were the most cynical of reasons for requiring schooling.) This attempt to educate so many students from diverse backgrounds and with diverse needs in a single setting has posed enormous challenges for our schools and given birth to controversies seemingly without resolution—over bilingual education, desegregation, equity in financing.

The increasing diversity in the school population, a growing self-consciousness about teaching "values," and a concurrent demand for "relevant" education to prepare youth for the job market have together resulted in the development of school curricula that are anything but equal. A curriculum rich in history, science, the humanities, and the arts, which could prepare students to live in a diverse and rapidly changing society, is conspicuously absent from many of our schools. Their curriculum offers students instead a core of skills and information designed to prepare them for only the most basic level of participation in society. Most important, the message of low expectations that such a curriculum carries probably does more damage to the psyche of these youth than their failure to acquire the subject matter.

Skills of Social Navigation

Ironically, our very diversity, the complexity of our lives and social systems, the explosion of knowledge and options, and the decline in importance of many social institutions that formerly complemented the work of the schools—churches, informal community groups, formal apprenticeships—require that our youth be prepared in more than just basic skills. They must be helped to navigate this complex social system, to understand its unwritten codes, and to make it respond to their needs.

Perhaps in part because we are a young country, composed of immigrants, we have become overly complacent about the process of acquiring the skills necessary to survive in a society like ours. We often think that these skills simply come with time. We are wont to call upon the experiences of our forebears as proof that poverty and marginality are only temporary stages in an inevitable process of becoming middle class. After all, children of the Great Depression went

without meals, wore hand-me-down clothes, and eventually saw an end to that economic deprivation. Earlier, at the turn of the century, immigrants flooded into this country, undereducated and unable to speak the language. But few Americans had high school educations, and getting a job depended more on the strength of your back than on the language you spoke. Immigrants managed to enter the mainstream of our society relatively rapidly.

Today, however, the social costs of being poor and undereducated are high. Social and economic mobility are rewards for a superior education, skill, and social contacts. None of these things is readily available in the schools serving the poorest of our students.

The Schools We Need

How, then, shall we redefine schools to better match the needs of our students? We must start with the realization that students are first members of a family. They are daughters and sons, nieces and nephews, before they come to school and when they go home every afternoon. If students are not faring well within the family, they are not likely to fare well in school. If the family is troubled, it will not likely have the resources to support the children in their schoolwork. Every teacher recognizes and can readily identify the students who are not expected to do well in school because of "family situations." Yet we continue to respect a strict dividing line between schools and home.

If schools are to meet the real needs of children, they must meet the needs of the whole child. This may mean vaccinations, nutrition, or family counseling. It may mean a warm jacket for cold days, someone to supervise homework, or someone to care for the children after school. It may just mean someone for an overstressed single parent to talk to about managing a family alone. But it must mean linking parents together in such a way that the hopeful can help the hopeless, and those who expect the most from their schools and their children can encourage those same expectations for other children.

Of course, the school as currently structured cannot take on all of these tasks. But local government and community agencies can be coordinated at the school site. Local community resources can be inventoried, and many needs can be met by community members themselves.

What would such a community school look like? Perhaps it would resemble the one in East Los Angeles where the principal created a sewing room with borrowed and donated sewing machines. The school encouraged parents to come in and help make outfits for the band and curtains for the classrooms. The parents were also allowed to use the machines to make clothes for their children—clothes that would otherwise have been prohibitively expensive to purchase.

Parents made a major contribution to the school, so they felt involved. They also created a community within the school.

Parents—mostly non-English speaking—flocked in. They made a major contribution to the school, which made them feel valued. But they did more than that. They created a community within the school. The principal always had parents to call upon for help, and the parents developed a social network of their own upon which to rely. The children in the school apparently benefited from the close relationship between school and home, because their reading scores rose dramatically.

The community school might also resemble another Southern California school, where the parents aren't asked to sit through tedious advisory board meetings, but where they are asked to contribute the particular skills they have—carpentry, sewing, cooking—to fundraising efforts for the school. Here the biggest community event of the year is the parent-child appreciation luncheon, which everyone attends, dressed up. All of the children—not just the excelling students—and all the parents are made to feel special. Not surprisingly, by reaching out to all parents in a way that values their particular skills, this school enjoys an extremely high degree of parent participation. The children's level of achievement is notably higher than in surrounding schools.

A community school, by definition, reflects its surrounding neighborhood. Buildings are used year-round and throughout the evening. Community members meet regularly, perhaps over a dinner prepared by parents, to discuss school and other community issues. An office, a trailer, or a portable building is staffed with volunteers as well as local agency personnel. The local school is the first place people in the community turn for help.

Where there is a community school, teenagers who want to earn money or school credits know where to go to find work doing after-school homework supervision, tutoring, recreation supervision, or child care. Senior citizens in the neighborhood can walk to the school to volunteer time and share in the companionship of their community. Because the school meets the needs of all kinds of parents—working parents' needs for homework supervision and after-school care, lower-income parents' needs for health screening and social services—there's no longer a need to plead with parents to come to school. The community school is the place where family needs are met, where the community draws strength and identity.

If we were to turn schools into resource centers for communities, if the terms "school" and "community" began to merge in citizens' minds, then a parent might spend some part of the day in the back of the classroom, not only monitoring the progress of the students and the quality of the education, but also making an unspoken statement that education is crucial and that the people providing that education deserve the respect of the students and the community. Businesses might provide release time for parents—maybe even other community members—to spend a few hours a

month in the schools. Their presence would convey a basic message: school is serious business, and communities are partners in that business. The schools might enjoy the support of all sectors of the community. No longer would they be the special interest of that one-quarter of the voting public with children in school.

A New American Community

A few years ago, a very important book appeared. *Habits of the Heart* warned us of the perils of what has often been perceived as our greatest strength as a nation: our unflagging faith in the spirit of individualism. American culture is filled with the legends of people who supposedly pulled themselves up by their own bootstraps and became successful with nothing more than a belief in themselves and the opportunity to pursue their destinies in a land that did not confine them to the limitations of their origins. In America, the son of a janitor can leave his home, leave his community, and become a successful businessman.

Maybe. Statistically, however, the son of a janitor is more likely to leave his home, leave his school, move to a neighborhood not unlike the one in which he grew up, but where he is unknown, and become a janitor. The authors of *Habits of the Heart* suggest that we may have traded the strength and support of our communities for an increasingly elusive personal benefit. We may have traded poverty of body for poverty of spirit. There is no more important place to begin to change that trend than in our schools, where our children learn what we value as a nation, more by what we don't do than by what we do. And there is no better place to create a community of caring than in our schools—the heart of our future.

For Further Reading

Broken Promises: How Americans Fail Their Children. W. Norton Grubb and Marvin Lazerson. Basic Books, 1982. This book challenges Americans to make the welfare of "other people's children" their own concern, suggesting that this may, indeed, be the only way of achieving social justice in our society.

Habits of the Heart: Individualism and Commitment in American Life. Robert N. Bellah and others. Berkeley: University of California Press, 1985. The authors propose a rethinking of the American emphasis on individualism and, borrowing from de Tocqueville, warn of a nation becoming devoid of community.

Parents as Partners in Education. Eugenia H. Berger. Merrill, 1987. This handbook on developing parent-school partnerships devotes considerable attention to school-based and home-based programs to enhance the communication between families and schools.

"Passing Through the Eye of the Needle." Patricia Gándara. *Hispanic Journal of Behavioral Sciences*, no. 2, 1982. This article describes a study of Mexican American youth who possessed background characteristics predictive of school failure, but who "beat the system." The focus is on the things that the young women in the study reported to be central to their success.

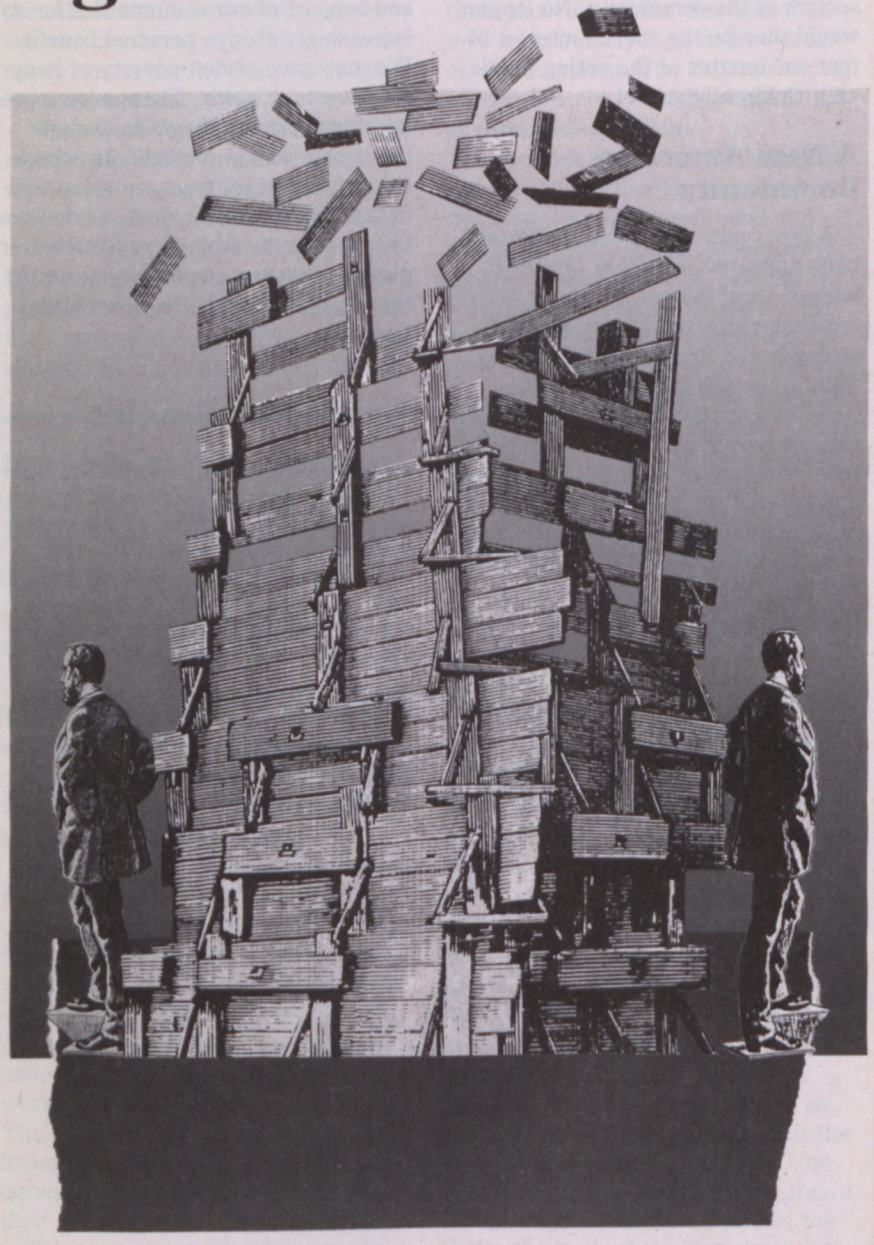
School Power. James P. Comer. Free Press, 1980. This story of how one community addressed inadequate school outcomes for its children makes the case for education's being a joint activity of families and schools.

Vulnerable but Invincible: A Longitudinal Study of Resilient Children and Youth. E. E. Werner and R. S. Smith. McGraw-Hill, 1982. This report on a group of children being reared on the margins of society looks at the antecedents, in both homes and communities, to successful outcomes for these youngsters.

Research and Practice: We Can Integrate Them

BY URSULA CASANOVA

There are good reasons for the teacher-researcher split—and better reasons for overcoming it. We can cross the gap in a great leap, or in a series of small, definite, significant steps.



There seems to be general agreement about the desirability of improving schools and instruction. There is less agreement about the best way to achieve that worthy goal. Within the education community, the role of educational research is often central to the arguments.

Some say that an existing body of knowledge, generated in the last 20 or so years by educational researchers, could contribute significantly to school improvement if only teachers would use it. Others argue that the research available is useless because it fails to take into account the realities of schools and classrooms and so does not address teachers. And some, particularly school administrators at various levels, have actually tried to apply research findings to the school improvement efforts. These attempts have usually met with only minimal success.

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Clearly, difficulties stand in the way of integrating educational research and educational practice. Practicing educators and researchers bring different perspectives to the problem. These differences must be recognized and deliberately addressed in any efforts directed at integrating research and practice in education.

The Theory/Practice Split

Education is a highly stratified field. Differences in status distinguish those working at various levels, such as elementary or higher education. Status

distinctions also exist among different roles. We have teachers and professors, special teachers, administrators, paraprofessionals, and—oh, yes—educational researchers. Among all these, those who "only teach" are accorded one of the lowest places in the hierarchy. Conversely, those who engage in educational research tend to be placed at one of the highest levels.

Why should this be so? Why should those who handle the thousand daily problems of instruction be accorded a lower status than those who handle only one of those problems at a time? The answer can be found in the traditional value placed on two types of endeavor: practice and theory. Teachers—as practitioners—engage in *praxis,* while the researchers' work is in *theoria*, theorizing.

Praxis and *theoria* are ancient Greek terms that we have inherited along with the values they symbolize. Traditionally, those who engage in thinking have been accorded a higher status than those who engage in doing, not only in education but throughout the professions. The same status differences can be found, for example, between the physicians who daily interact with patients and those who engage in laboratory research.

In education, the dichotomy between theory and practice has been particularly harmful, contributing to the opening of a wide gulf between teachers and researchers. Teachers tend to disparage educational researchers. They get impatient with researchers' unwillingness to provide solutions for their problems. They find research writing unintelligible and irrelevant to their daily concerns. And the explicit status differences between theoria and praxis don't improve the relationship. Teachers tend, perhaps unconsciously, to feel that they hold a lower status than researchers. This perception often inhibits them from expressing their own opinions when confronting research findings and contributes to their avoidance of articles that appear difficult and incomprehensible.

Researchers, on the other hand, strive to build theories. They study specific occurrences and isolate them in order to understand them better. They find the world of the classroom too cluttered, so they choose to work with well-defined segments of education. Even when researchers conduct their studies in the classroom, as many now do, they limit themselves to a particular problem, or to the behavior of specific children. They get impatient with teachers who seek answers and solutions to their messy practical problems.

Researchers, even the best-intentioned ones, also cannot avoid contamination with the existing social values that assign them a higher status than teachers. This perception, even when unconscious, may lead them to discredit teachers' legitimate concerns and to undervalue teachers' capacity for participating as equal partners in research activities.

Why should those who handle the thousand daily problems of instruction have lower status than those who handle one at a time?

It is not surprising, then, that teachers and researchers eye each other with suspicion. Their behavior recalls Prof. Higgins' plaintive demand in *My Fair Lady*: "Why can't a woman be more like a man?" Teachers would like researchers to be more like them, to address real problems. Researchers, for their part, would like practitioners to emulate them by taking a detached, scientific approach to their plans and problems.

But there is hope. After decades of keeping their distance, many researchers have entered the schools and classrooms during the last 20 years. Their experience has given them a greater respect for teachers and a better understanding of the difficulties teachers face. In the best situations, teachers and researchers have begun to collaborate as equals, in the process gaining a better understanding of each other. Theory and practice are becoming more comfortable together. Unfortunately, positive effects of this trend have been counteracted by another trend: an increased tendency for state and local administrators to misapply research to school improvement efforts.

School Improvement And Misuse of Research

School improvement, like motherhood and apple pie, is an unassailable concept. The movement is strengthened by its ostensible reliance on "research." But what appears to guide most of these efforts is the selective use of research findings to support administrative decisions. Such findings become the framework for policies that are then imposed from above.

As researchers will quickly admit, their findings are meant to inform, not to become policies. Research reports are carefully preceded by caveats that limit their applicability to situations similar to those studied. These caveats are often ignored by policymakers eager to satisfy public demands. Thus we find bizarre uses of instruments designed for specific purposes. For example, observers in one Southeastern state found school personnel using an instrument specifically designed for monitoring teacher/student interaction in primary classrooms during reading lessons—to monitor teacher/student interaction during a junior high drama class.

Efforts to use research findings to improve education are also hampered by the complexities inherent in the educational process. The need to develop simple, straightforward, and easily understood policies often results in simplistic interpretations of research findings. The complex interaction of time and classroom activities that resulted in the concept of Academic Learning Time (ALT), for example, has been translated too often into the simple time-on-task concept. Reducing ALT to time-on-task ignores important differences between allocated and engaged time. The two concepts also require different relationships between the difficulty of the

task and student ability, and between the curriculum and the outcome measures. This reduction and simplification of the original concept has led many districts to increase time-on-task by extending the school day or the school year. It is not surprising that, by themselves, such policies have only minimal impact on student achievement.

In some cases administrators go beyond simplification to outright distortion of research findings in their eagerness to improve their school's performance. A principal, for instance, was overheard reviewing with her staff the *six* characteristics of an effective school proposed by the late Ron Edmonds. To Edmonds' original five, she had added one more: "to obey the principal."

Classroom and Academy: Demands in Conflict

These misuses of research have not endeared researchers to teachers. Instead, teachers will often see research as a tool used by administrators to limit their autonomy. Administrators' tendency to preselect research topics and findings that are to their liking, freely interpret them, and impose them on teachers is one reason teachers resent researchers and their findings.

In addition, teachers who have an interest in research lack time to delve into libraries in search of articles. When they do, and actually locate the information they want, they find they're unfamiliar with the prose conventions of research reports.

Teachers also lack opportunities to discuss and digest the pros and cons of a given idea in an open, nonjudgmental atmosphere. Finally, the effort seems unnecessary, since they usually find that policymakers do not value their opinions.

Researchers operate under their own set of pressures. While the teacher is under pressure to be efficient and effective, the academic researcher is under pressure to discover new theories and to produce publishable articles. The kind of research teachers want and the questions they would like answered may be of interest to the researcher, but they may also be tainted in academic circles as too "applied" and, therefore, may not lead to academic advancement. In addition, academically valued writing must be "scholarly"—that is, it must be written in the specialized jargon of the researcher and carefully stated, with appropriate caveats, in order to escape criticism. This jargon is unfamiliar to teachers, and the carefully stated conclusions seem designed to confuse rather than clarify.

Lastly, research results must be published in the "right" journals if they are to count in obtaining desirable academic rewards. Publication in the magazines most teachers read is not highly valued in the academy.

What appears to guide most school improvement efforts is selective use of research results to support administrative decisions.

There are also methodological problems connected with classroom or school-based research. The positivist approach has dominated the research enterprise for many years. Positivist research tends to remain distant from the site and the subjects being researched. Its findings are understood within a statistical framework based on generalizations that don't easily translate to the daily problems of instruction.

Emphasis has recently shifted to qualitative research based on observation and description. This genre is more compatible with school and classroom realities, and the findings from such research tend to be more applicable to classroom problems. But researchers who engage in this type of study have to deal with their own set of problems. For example, they may have to secure administrators' permission to conduct research in the schools, but they are also ethically responsible to protect participants in the study from their supervisors. Thus they must balance pressures from administrators against pressures from participants. In their conclusions, they must weigh the personal relationships that inevitably develop between researchers and participants against the need for honesty and candor in their reports.

Approaching Integration

What I am describing, then, is a situation where people who share similar goals differ in their values, methods, and perspectives. Both teachers and researchers consider themselves educators, but their different roles subject them to unique sets of pressures that they do not mutually understand.

It is also evident, however, that in the best of circumstances teachers and researchers can and do learn from each other. For example, Shirley Brice Heath in *Ways with Words* describes the cooperative relationship she established with teachers while conducting the study she's reporting. The teachers' "why" questions were answered by a researcher who had learned how to bridge the gap between the classroom and the students' homes. The teachers contributed to the research, and the findings of the study were applied to the problems they faced in their classrooms.

When this happens, the combined knowledge of teacher and researcher can be beneficial to the students they both care about. How then can we facilitate this relationship? How can we bridge the gap?

Closing the Gap

The recognition of the need for bridges between research and practice is not new. Much has been written, and some steps have been taken, to give teachers better access to research. The Ohio State University publication *Theory into Practice* and the twin monthly columns, "Putting Research to Work," by Berliner and Casanova in *Instructor* magazine are two examples of this effort. Other projects have sought to promote joint efforts of teachers and researchers to solve educational problems. Less has

been done, however, to encourage analysis and evaluation of ideas, and to promote collegial relationships, among teachers.

Researchers also need to accept their responsibility to achieve an integrated view of educational theory and practice. This is a matter not only of bringing the research to bear on the practice, but also of bringing the practice to bear on the research. The researchers need to recognize teachers' needs and problems, listen to their questions, and assume a more respectful attitude toward teachers and praxis.

Powerful precedents must be overcome for integration to happen. Teachers are not accustomed to "owning" educational research. Through the years they have deferred to the power of universities, politicians, and administrators who have expected them to implement ideas initiated by others. "Teacher-proof" materials are just one example. Limited to the delivery of instruction, teachers naturally would rather discuss activities and techniques than pedagogical theory. Educational researchers have moved into the vacuum to do the theoretical work. But they carry on their task in paths parallel to those of the teachers, so their impact on practice remains minimal, although their efforts are rewarded by academic favors.

The initiative for change is arising from both sides. Many researchers, frustrated about their inability to affect school practice, are increasingly aware of the distance that separates them from the practitioners. Many have moved their research into the classroom; some work closely with teachers. Rather than regard themselves as "the experts," they see themselves as contributing one kind of expertise while teachers contribute another. That is, they assume a reciprocal rather than a hierarchical relationship. This is the model Shirley Brice Heath describes.

Many teachers have also become aware of the potential that research may hold for them. Beyond seeking out the literature generated by educational researchers, they have initiated research activities they conduct either by themselves or with colleagues or academicians. In the process, these teachers have learned that they can actually muster the time, information, and resources to conduct research. Ultimately, they learn, too, that increased knowledge of their professional literature and increased control over that knowledge base can build feelings of competence and professional empowerment.

Responding to the Challenge

The challenge is to extend these initiatives and make the integration of research and practice the norm rather than the exception. Accomplishing this goal will require, first, attention to the attitudes already described. But attitudinal changes are slow. They must be encouraged through specific activities that increase teachers' reflection, familiarity with the knowledge base, participation in inquiry, and collegiality.

It is not only a matter of bringing research to bear on practice, but also of bringing practice to bear on the research.

Reflection. Teachers are seldom included in philosophical discussions—or in making the subsequent decisions—that determine the content or process of schooling. They work in isolation from their peers. They are almost always expected to implement what others have developed.

One way teachers can combat these pressures for unreflective action is to keep journals—and, in one way or another, share their thoughts. Teachers may choose to retain the privacy of their thoughts and use journals only as a way to understand their own behavior or identify concerns to be discussed or ideas to share with colleagues. Other teachers may choose to exchange journals with their colleagues or perhaps with researchers who are willing to assume a reciprocal relationship with them.

Such was the case, for example, in Dee Ann Spencer's study of women teachers. Participating teachers conversed with her through their journals. They found that keeping a journal provided a useful catharsis as well as a vehicle for gaining valuable insights into their professional (and personal) lives. By capturing thoughts and incidents that might otherwise be forgotten, they found, journals provide valuable data for later reflection.

Knowledge. To become familiar with the existing knowledge base, teachers need to approach the task not as students fulfilling an assignment, but as professionals expanding their own expertise. They must identify a real problem before turning to the literature to further their understanding.

Teachers will then need help in overcoming their aversion to research studies through materials that bridge the gap between researcher and practitioner. Annotated primary source material, packaged around a theme, can do much to help teachers gain confidence in their ability to read, analyze, and critique the research. (Predigested materials, in contrast, tend to leave out caveats and limitations that are an integral part of competent research.)

Teachers should be encouraged to discuss and analyze the primary research findings, then judge the applicability of a given finding to a specific situation. This process gives them the knowledge and expertise they will need in order to evaluate research findings when they seek solutions to instructional problems, or to publicly challenge the inappropriate use of research findings. This process is also what is expected of other professionals, from oncologists to computer programmers.

Inquiry. Teachers also need to expand their perception of themselves to include the role of inquiring professionals. Educational inquiry springs from two sources. What researcher Garth Boomer calls "Big-R" research has dominated the field. "Big-R" re-

search originates outside the classroom among people who are detached from the daily problems of instruction. "Action research," in contrast, is conducted by a group or individual engaged in instruction and is, as well, a solution-oriented investigation. But all research begins with a question. Teachers, always full of questions and always seeking answers for them, already have what they need to begin the process of inquiry.

The difference between professional researchers and professional teachers lies in the point of origin of the question. Teachers-as-researchers originate their own questions and take them seriously enough to seek their own answers. They may do this individually or collectively, through methods that are compatible with their work, such as the qualitative methods mentioned above. Or they may choose to do so in collaboration with researchers who are willing to meld their own expertise with that of teachers.

Collegiality. Inherent in all these ideas is the need for teachers to develop collegial relationships at the workplace and beyond. Teachers in collegial groups can reflect upon their profession, gain increased knowledge about their field, and engage in inquiry. No teacher can do this alone, and no teacher alone can challenge existing norms.

Teacher preparation, unlike preparation for other professional roles, provides little opportunity to learn from the profession's practicing experts or from peers. Medical doctors and lawyers provide internship experiences designed to enhance the specialness of the group of aspiring professionals. Aspiring doctors do their rounds in groups led by an expert; junior lawyers participate as assistants to their more experienced peers and are mentored through that process.

In contrast, aspiring teachers complete a short internship in one classroom, isolated from their peers. Professional isolation continues when they enter their own classrooms, where they are expected to "sink or swim" on their own. Teachers normally focus their attention on the daily problems of running the classroom, because they have little time or support to do otherwise. Like other professionals, teachers need to discuss their problems in neutral settings and to learn from one another as well as from educators engaged in other aspects of schooling, such as educational researchers.

Educational researchers Stan Aronowitz and Henry Giroux suggest alliances between teachers and academics to pursue projects designed to expand understanding of the critical role educators play at all levels of schooling. In the course of these projects, educators of all persuasions can grapple together with the seldom-addressed larger questions of schooling.

Administrators must understand that the desire for teacher competence is incompatible with top-down management.

These writers call for a redefinition of the traditional theory-practice relationship within the context of these alliances. Collegial groups can provide opportunities for such activities within and outside the school.

A Shared Responsibility

Researchers. The alliances proposed above, and a new relationship between theory and practice, cannot be established by teachers alone. Educational researchers need to change long-standing attitudes that give them the advantage of presumed expertise and isolate them from the battleground. Those who are established need to contribute to changes in the academy that reduce that isolation.

Russell Jacoby has recently decried the academy's absorption of intellectual energy since the early 1940s. He argues that the demands of university careers have helped erode the power of the intellectual elite to influence social change. Professors gathering at their annual conferences to compare notes, Jacoby contends, constitute their own universe. Educational researchers need to keep that assertion in mind. If they're as concerned as they claim to be with the condition of education, it is not enough to stand on the sidelines. They have a responsibility to act in concert with those who practice the profession.

Teacher-Training Institutions. Teacher-training institutions also practice the profession, and they also have a responsibility here: to prepare potential teachers for an expanded role. Norms of reflection, inquiry, and collegiality must be set during teachers' preparation. Teacher preparation programs must begin a socialization process that leads to professional empowerment. The process and content of courses must be designed with that goal in mind. And professional empowerment should lead teachers to assume a leadership role—not only in educational circles, but in the society at large.

School administrators. Finally, school administrators need to expand their perceptions of the teacher's role. They must understand that the desire for teacher competence is incompatible with a top-down approach to management. Control over professional growth is a vital part of professionalism. Teachers, alone among those with such extensive professional preparation, lack full control over their professional development.

The difference may be due to the characteristics of the teaching force during the early years of the profession, when most teachers were inexperienced and very young women. These young teachers often worked by themselves in isolated areas where supervision was intermittently provided by older, sometimes more experienced men. It is likely this situation that led to the development of materials and structures that could be easily implemented and evaluated, as well as to a patriarchal model of supervision.

But times have changed. Most teachers are now experienced men and women who have at least as good an understanding of instruction as their supervisors or the researchers

do. These teachers may not use the same jargon. They may not be able to confidently provide numbers to back up their intuitions. But their intuitions are usually distilled out of experience and must be taken into account.

Teachers as Partners

Teachers are smart. Much has been said lately about the low academic qualifications of the undergraduates who enter teacher preparation programs. We forget that as, say, juniors in an undergraduate program they are already part of an academically elite group: Only 74 percent of all U.S. citizens in 1985 had completed high school. Once teachers earn their bachelor's degrees, they join an even more select group; only 19 percent of our total population had achieved that goal. If, as is usually the case, these individuals pursue additional academic degrees, they join an even smaller percentage of our citizenry. Academic degrees may not be the only measure of intelligence, but they are a fair yardstick for determining whether individuals are capable of full emancipation in their profession.

Unfortunately, demands for school improvement have not taken into account the intelligence, judgment, and experience teachers can contribute. A recent study by the Carnegie Foundation suggests that most teachers have little to say about school policy in areas other than textbook selection or curricular content.

Ernest Boyer, a former U.S. commissioner of education and current president of the Carnegie Foundation for the Advancement of Teaching, notes that failure to give teachers more authority will make it difficult to attract outstanding young people to the profession. Most of the mandates for reform, he points out, have been imposed from the top down.

Boyer provides a strong argument that teachers should be full partners in the educational endeavor. Participation in school improvement activities is easy to mandate, but desired change is difficult to force. A culture does not change unless the inhabitants of that culture feel the need for change. In consequence, the field of education is littered with the bodies of aborted innovations that someone tried to impose on teachers.

Possibilities for school improvement are among the benefits of truly integrating research and practice. Those benefits are many, perhaps exceeded only by the difficulties that stand in the way. It is time to honestly acknowledge those difficulties and to coordinate our efforts across various educational interest groups to ensure that this integration takes place for the benefit of all—particularly our children.

For Further Reading

Education Under Siege: The Conservative, Liberal, and Radical Debate over Schooling. S. Aronowitz and H. Giroux. Bergin & Garvey, 1985. The authors explore an alternative vision for the schools that places pedagogy in the service of creating citizens who are able to exercise power over their own lives. This is exciting and challenging reading that provokes thinking and suggests action.

Great Readings in Educational Research. U. Casanova, D. C. Berliner, and P. Placier. Unpublished manuscripts. These are a set of packaged research articles accompanied by introductory and explanatory text. They are meant to provide teachers with guided reading of educational research in a topic of their own selection. Reading is to be followed by discussion and analysis in the company of colleagues. Individual components have been successfully piloted by teachers at several sites.

Reclaiming the Classroom: Teacher Research as an Agency for Change. D. Goswami and P. D. Stillman, eds. Boynton/Cook, 1987. A book of readings that argue persuasively for teacher participation in research activities. These authors see such participation as a necessary component of educational change.

Ways with Words. S. B. Heath. Cambridge University Press, 1983. An outstanding exemplar of the ideas proposed in this article. Heath managed to write a scholarly book that is both accessible and useful for teachers. The research narrative captures and sustains the reader's interest. It is followed by a description of Heath's collaborative relationship with teachers.

Working Together: A Guide for Teachers. M. M. Mohr and M. S. Maclean. National Council of Teachers of English, 1987. A "how-to" manual for teachers interested in expanding their role to include inquiry. Although directed at teachers of English, the ideas can be adapted by teachers in other disciplines.

Early Help for Kids at Risk: Our Nation's Best Investment

BY OWEN B. BUTLER

Early childhood programs can greatly increase some children's chance of eventual success. But how much would such programs cost—and who's willing to pay for them?

Each year, nearly 1 million children drop out of the nation's public schools. Most are marginally literate and virtually unemployable. Thousands of others graduate, but they lack the literacy levels and skills they need to qualify for productive employment. Many of these teens fall prey to a variety of social ills, including drug abuse and crime. Many become parents without first learning how to take care of themselves, thus perpetuating the cycle of poverty and failure.

Each year's class of dropouts costs this nation more than $240 billion in lost earnings and foregone taxes over their lifetimes. Billions more will be spent on crime control and on welfare, health care, and other social services.

If we as a nation do not change the way we deal with children born into poverty, discrimination, or neglect, the United States will face the certainty of a permanent and growing underclass. The business and academic leaders of the Committee for Economic Development (CED) have become convinced that if the United States is to be a "world class" economy in the next century, we had best begin preparing now to have a "world class" work force. The former without the latter is simply an impossibility.

In the last six years, CED's project

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on business and the schools has examined how our nation's public education system is serving our society and our nation, producing two studies, *Investing in Our Children: Business and the Public Schools* (1985) and *Children in Need: Investment Strategies for the Educationally Disadvantaged* (1987). Our research has led us to the conclusion that we *can* rescue most of the children at risk of educational failure if we both improve the schools themselves and address the broader needs of these children and their families in their earliest years. Reform strategies for disadvantaged children that focus on the school system alone are doomed to continue to fail a substantial portion of these youths.

Early Prevention: the Best Investment

Children born into poverty and neglect often suffer from debilitating deprivations that seriously impair their ability to learn. Early prevention programs for these at-risk children and their parents, starting with prenatal care and including health care, quality day care, and preschool education, help prevent learning disabilities and psychological problems that disrupt later educational efforts.

Intervention in the earliest years is the most cost-effective way to improve the prospects of disadvantaged children. Research shows that the earlier you start, the better. If I learned one thing in my years with Procter & Gamble, it is that building quality into a product from the start is far less costly than fixing your mistakes at the end of the production process.

Long-term studies of children in the Perry Preschool Program in Ypsilanti, Michigan, and the Harlem Head Start program in New York City have found that high-quality preschool education for three- and four-year-olds helped reduce by about half later dropout behavior, criminal involvement, teen pregnancy, welfare dependency, and the need for remedial education.

This reduction in later delinquency saves taxpayers a lot of money. According to the most recent data from the U.S. House of Representatives' Select Committee on Children, Youth, and Families, preschool programs return $6 for every $1 spent. Prenatal care saves $3.38 for every $1 spent, and nutrition programs for women and infants return $3 for every $1 spent.

We can't afford not to undertake these expenditures. What we spend to prevent lifetime failure is not an expense, it's an investment. By continuing to allow nearly one-third of our children to fail, we will not only impoverish these children, we will impoverish our nation—culturally, politically, and economically.

An $11.5 Billion National Prevention Program

Since the release of *Children in Need* in September 1987, I have spent a considerable amount of time discussing CED's recommendations on early education and prevention programs with government officials, businesspeople, educators, and reporters. Inevitably, the question comes up: "How much is all of this going to cost?" In recent months, we have spent a good deal of time researching that question, and I feel confident that we now have a fairly good picture of what the bottom line will be.

Building quality into a product from the start is far less costly than fixing mistakes at the end of the production process.

We know that proper prenatal care is the first line of defense against low birth weight, learning disabilities, and physical handicaps. But in 1985, over 850,000 babies were born to mothers who received no prenatal care during the first trimester *(see chart below)*. Most of these women were impoverished, or low-income "working poor." We can provide basic prenatal care for every disadvantaged mother who doesn't now receive it at $800 per mother. That would cost $700 million.

Infants and toddlers aged one and two need to participate in child-care programs that provide enrichment for the children, offer parenting education, and free parents to work. Those programs would, of course, be voluntary. We estimate that half of eligible children would participate in full-day programs, which would cost $4,800 per child a year, and the rest in half-day programs, which would cost $3,000. The total cost of providing that kind of care for all disadvantaged toddlers would be $6.55 billion.

The third part of the program is high quality preschool for three- and four-year-olds—again voluntary. A good quality program costs about $4,000 a child per year. The total cost of preschool for every disadvantaged child would be $6.6 billion.

Some federal monies are already appropriated for programs like these, and we would not expect to duplicate them. Currently, we spend $1.2 billion on Head Start, $1.1 billion on federally subsidized child care, and $50 million in Chapter 1 money used by states to fund preschool.

So, if it were possible to implement all the programs we envision at one time for all children, the total cost would be $11.5 billion in new appropriations. In fact, of course, the price tag for these programs would be considerably less for the first few years. First of all, you can't enroll all eligible children in these programs at once, even if the funds were available. Furthermore, we simply don't have a large enough cadre of trained, qualified teachers and child care workers. But we should move toward a national investment of $11.5 billion over the next five years.

Is $11.5 billion a lot of money? Well, it's not much more than one year's cost-of-living increase in Social Security. And it's a mere 7 percent of what we now spend on K-12 education in the United States.

Who Will Pay?

We at CED think this $11.5 billion investment would be best funded by a combination of foundation, corporate, and federal, state, and local government sources. While we do expect the federal government to contribute, we do not expect it to be the principal

source of funds, since states have taken on a lead role in education in the past decade. Nevertheless, the federal government should increase funding to the federally based Head Start program, since it is so successful at producing lasting results. Head Start currently serves only 20 percent of eligible children. It should be funded to a level that would permit all eligible children to participate.

As key players in education policy, states have become much more active in the early childhood area. Several years ago, only four states were funding preschool programs, and now 24 do. We think that state leveraging of funds is vital to the success of any preschool effort, and we applaud Senator Kennedy's Smart Start legislation, which requires states to foot part of the bill—up to 50 percent by the third year. Next, we must encourage state leaders to extend their enthusiasm for preschool to other valuable programs, such as prenatal and toddler care, which reach disadvantaged children even earlier.

Local government involvement and support also are crucial. Taxpayers are beginning to understand that early childhood programs are a good investment that will produce a return many times the initial cost. The American people are not unwilling to spend more money to solve the problem of young people at risk, but they want the funds to go to programs that have been shown to work—and these have. I don't know of an instance where local taxpayers have refused to pass levies specifically designated for early childhood programs.

Private-sector support also is important: it can help bridge gaps in public funding and encourage local collaboration. A model program in Chicago, the Beethoven Project, is funded in part by Irving B. Harris of Pittway Corporation, whose $600,000 pledge matches a grant from the U.S. Department of Health and Human Services. State and city agencies are also making substantial contributions to the project, which provides health care, day care, and preschool education to children living in the Robert Taylor Homes, the largest and one of the most severely disadvantaged public housing projects in Chicago.

A similar effort in Minneapolis, called Success by 6, was launched last January. Initiated by United Way of Minneapolis, Success by 6 is devising and coordinating a citywide strategy to make prenatal health care, parenting education, quality child care, and preschool programs available to low-income families. The project has also produced a study outlining the local dimensions of the problem and developed an information base available to local organizations interested in the issue. The project, in addition, plans to fund local pilot programs in early childhood development. Success by 6 is directed by a committee of community leaders, including representatives from government, business, labor, and the nonprofit sector, representing a unique citywide collaboration that CED hopes will be emulated in other communities across the country.

Improving Opportunities For Learning, Teaching

A key reason that disadvantaged children have such a high rate of educational failure is that they often lag in physical and psychological development and may be unprepared to meet the demands of academic learning. Estimates vary, but some studies suggest that as many as one-third of the children eligible to enter kindergarten are not ready to do so. A recent National Governors' Association study concluded that as many as 50 percent of youngsters are placed in grades a year or two ahead of their developmental age.

Teachers deal daily with the consequences of such developmental disadvantage. A trained professional can give special attention to two or three such children without short-changing the rest of the class, but when there are 10 such children, the task becomes nearly impossible.

The greatest impact of early childhood programs on education may be their effect on the rest of the class, the "normal" students who are often robbed of the teacher's attention by disruptive children. Proper nutrition and health care, along with stimulat-

ing day care and preschool education, will enable many more disadvantaged children to enter first grade ready for first grade work, thus giving the rest of the class a chance to learn and the teacher the opportunity to teach. The whole classroom atmosphere, not to mention teacher morale, will improve.

While stressing the value of early preventive measures, CED also recognizes the importance of making schools more effective places of learning. We call for fundamental school restructuring where needed, including school-based management, greater decision-making opportunities for teachers, smaller schools and smaller classes, greater parental involvement, and a variety of social support, health care, and extracurricular programs centered in the schools.

We also recognize the importance of special programs that help at-risk teenagers improve their skills, motivation, and self-esteem. If we don't work with the 8 to 10 million disadvantaged children who are already in the system, then we are headed for real trouble. But if we reach disadvantaged children early enough we can prevent these problems. Strictly from an investment standpoint, early prevention programs will pay the biggest dividends for our nation.

A Sustained And Coordinated Effort

Some of the changes CED is advocating can be put into place now. Others address fundamental structural weaknesses in our public schools and in our policies toward children and youths. Making these longer-term changes will take a sustained effort and a firm commitment by a broad-based coalition of government, education, business, and community leaders.

Part of this commitment must be a willingness to increase our financial investment in children. An $11.5 billion early education investment to fund prenatal care, infant and toddler care, and preschool education for every disadvantaged child is the best investment our society can make. The price of action may seem high, but the costs of inaction are far higher.

The business community's concern extends far beyond the narrow dollars-and-cents issues. This is a matter of survival. Whether the nation remains free and prosperous will depend on our ability to give every American child the opportunity to develop to his or her full potential. As business leaders, we believe it is incumbent upon us to become a persuasive voice for the millions of disadvantaged children who cannot speak out for themselves.

Children in Need: Funds Required For Early Prevention

Program costs	Total (billions)
Prenatal care[1]	
850,000 mothers x $800 per client	$ .70
Infant and toddler care[2]	
One- and two-year-olds	
850,000 full day x $4,800	4.00
850,000 half day x $3,000	2.55
Preschool[3]	
Three- and four-year-olds	
1,660,000 full day x $4,000	6.60
Total	**$13.85**

Funds Currently Allocated

Head Start	$ 1.20
Child care	1.10
Chapter 1 funds allocated to preschool	.05
Total	$2.35

Total New Funds Required for Early Prevention $ 11.50 billion

Notes

[1] Estimate based on 3.75 million live births in 1985, of whom 24 percent were born to mothers who received no first trimester care.
[2] Estimate based on number of births in 1985 surviving to age one multiplied by a 23 percent poverty rate for all children under age six.
[3] Based on estimate of number of children in those age groups living in poverty using the 23 percent poverty rate for children under six.

Source: Committee for Economic Development

For Further Reading

American Business and the Public School: Case Studies of Corporate Involvement in Public Education. Marsha Levine and Roberta Trachtman, eds. Teachers College Press, 1988. This book appraises pioneering examples of business-education partnerships that have influenced school funding, programming, and policy at both the national and local levels.

Business and the Public Schools. Marsha Levine and Denis P. Doyle, eds. Special issue of the *Peabody Journal of Education,* 1985. This special edition contains research papers on business involvement in the public schools, school financing, vocational education, basic skills training, school management, and national assessment.

Business and the Schools. Proceedings of a Symposium on Business and the Schools. Committee for Economic Development, 1984. This symposium brought together business leaders and educators to hear five experts analyze some of the most important issues in the national debate on public school reform.

CED and Education: National Impact and Next Steps. Proceedings of a Symposium on CED and Education. Committee for Economic Development, 1988. In this symposium, six distinguished business and academic leaders outline actions that business, government, and education can take to improve the schools and the prospects of disadvantaged children.

Children in Need: Investment Strategies for the Educationally Disadvantaged. Committee for Economic Development, 1987. This CED policy statement addresses the special needs of the growing number of disadvantaged children in this country, overlooked by previous educational reforms.

Investing in Our Children: Business and the Public Schools. Committee for Economic Development, 1985. This CED policy statement focuses on how business can work with the schools to increase the return on our investment in education.

Bringing the 'Moral' Back In

BY GERALD GRANT

Parents have always cared about giving their children moral standards. Now consensus on the purposes of schooling has eroded. What's the school's proper role in this delicate endeavor?

The thunder about moral education has been heard in the last decade mostly from voices on the right. Until quite recently, most liberals have tended to dismiss this rhetoric as a reiteration of nineteenth-century morality, complete with appeals for restoration of school prayer. But then, from the other side of the political spectrum, New York Governor Mario Cuomo began to give a more prominent place to the role of schools in shaping public morality, and Jesse Jackson's Presidential campaign further rehabilitated the topic. It should not now come as a shock to find so trenchant a voice on the democratic left as Christopher Jencks weighing in recently to defend moral rhetoric (granted, the moral rhetoric of Black leaders and teachers, not Ronald Reagan). In a penetrating analysis of William Julius Wilson's *The Truly Disadvantaged*, Jencks writes:

> . . .In poor communities, as well as in rich ones, clergymen, teachers, mothers, and other moral leaders must continually struggle both to limit and redefine self-interest. Censoriousness and blame are their principal weapons in this struggle: blame for teenage boys who steal from their neighbors, blame for drunken men who beat up their wives, blame for young women who have babies they cannot offer a 'decent home,' blame for young men who say a four-dollar an hour job is not worth the bother, blame for everyone who acts as if society owes them more than they owe society.
>
> The unwritten moral contract between the poor and the rest of society is fragile at best. We usually treat the poor badly, they often treat us badly, and perhaps worst of all, they often treat one another badly. But the solution cannot be to tear up the moral contract, or to deny that the poor are responsible for their behavior. That approach must eventually lead to a Hobbesian war of all against all. The only viable solution is to ask more of both the poor and the larger society.

Jencks agrees with Wilson that more job training, children's allowances, subsidized child care, and other programs are needed to make good on American society's obligations to the

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An earlier version of this essay was given as a paper at the Seminar on the Federal Role in Education at the Aspen Institute for Humanistic Studies in August 1988. It will be published as part of a collection of the seminar papers. The author would also like to express his gratitude for support in the preparation of this article to the Spencer Foundation and the Center for Advanced Study.

poor, but he also argues that "moral ideas and norms have a life of their own." Thus institutional reforms of the type just enumerated must be complemented by "a self-conscious effort at cultural change, of the kind that Jesse Jackson and others have promoted." Although Jencks does not discuss the role of schools in such a transformation, his analysis signals a remarkable shift in discourse about the problems of moral education.

A consensus is developing from both the right and the left that the topic of moral education needs to be brought back into the dialog. The difficult questions involve defining what we mean by moral education and defining how it should be brought back in: In what manner, at what level, and by whom?

Privatizing Virtue

In one sense, the topic of moral education never dropped out of the dialog. Parents have never been unconcerned about morality, nor has any first grade teacher been able to avoid the topic. But shifts in emphasis, in the broader policy discourse, can be marked out.

A comparison of two points in history illustrates one such broad shift. The first is the Northwest Ordinance of 1787, which expressed the federal motive in this language: "...religion, morality, and knowledge being necessary to good government and the happiness of mankind, schools and the means of education shall forever be encouraged." The second came in 1958, when Congress, stung by the Soviet success in launching Sputnik, "hereby finds and declares that the security of the nation requires the fullest development of the mental resources and technical skills of its young men and women." By the time the National Defense Education Act was adopted, the close connection between morals and education that the Founders assumed was seldom expressed in legislative intent.

The Revolutionary generation in America saw the need of linking virtue and intelligence. Thomas Jefferson and Benjamin Rush advocated expanded schooling devoted to citizenship and common culture. The developers of common schools in pre-Civil War America were not secularists. Horace Mann and others, Carl Kaestle reminds us, "assumed that moral education required the sanction of religion and that moral education was the most important task of the common school."

But as America became more diverse and stridently sectarian, the problem became to define moral education in such a way as to win the assent of those of many faiths (albeit mostly Protestant ones). The nineteenth-century discourse about moral education moved from Puritanism to Protestantism to general Christian beliefs based upon Bible reading.

Teachers grew more reluctant to enforce norms against cheating, stealing, or verbal or physical abuse unless they had hard evidence.

The compromise did not please Roman Catholics. They objected both to the use of the King James version of the Bible and to the Protestant practice of reading the Bible without comment and without the benefit of illumination by Catholic teaching. Many Catholics (and some Lutherans and, later, Jews and others) went their own way, founding schools where specific religious doctrines could inform the entire educational enterprise.

By the 1880s some educators saw the faults of the pan-Protestant approach and attempted to develop a more universalistic creed. A report in the *Wisconsin Journal of Education* claimed:

> There is a secular morality which is not opposed to religious morality . . .but is the result of human experiences, is recognized by all civilized people, is taught by the philosophers of all nations, and is sanctioned by all enlightened creeds.

Schools eventually began using "morality codes" sponsored by the Character Education Institution, a private organization founded in 1911.

John Dewey sought to go beyond code-like solutions to moral education and to bury the religious divisions of the nineteenth-century in a new philosophy of pragmatism. He aimed to lay the philosophical foundation for a common democratic faith based on logical premises of shared life in schools. Criticized by traditional moralists for being a relativist and by radicals for focusing too much on process and too little on ends, Dewey nevertheless provided new justifications for the moral basis of public schooling and helped to shape what researcher Robert Bellah has called the "civil religion."

Dewey's framework did not end the defection of some Catholics and other dissenters from the public schools. But it did become grist for the conventional morality, freely mixed with elements of the Boy Scout oath and local sentiments in a nation that managed to assimilate large waves of immigrants (although Blacks, who were increasingly migrating to urban areas of the North, were still a pariah caste) and to survive the economic shock of the Great Depression.

By the 1950s, America was a newly self-confident and prosperous world power. We were the "first new nation" and the first to put a nearly universal system of primary and secondary schools in place. We felt (at least until Sputnik) that our success was due in good measure to our success as educators.

This was also, as Daniel Bell's widely noted book proclaimed in 1960, supposed to be the "end of ideology." By this title Bell indicated that traditional divisions between the left and the right were attenuating, the moral fervor of McCarthyite anti-communism in the United States was on the wane, and technical issues had become more salient.

The language of the National Defense Education Act reflected this shift. International competition was to be waged in terms of brainpower and technical expertise. In the schools,

this translated into an emphasis on cognitive development and intellectual achievement. The formal content of the curriculum was stripped of moral justifications, and the schools increasingly reflected the separation between the public and private realms that became common currency in American society. In this division the discussion of religion and morals was classified as personal and relegated to the private realm, although most schools routinely engaged in some form of school prayer through the 1950s and into the 1960s.

The End of Consensus

This was the status of moral education through the Eisenhower years: a bland consensus (occasionally marked by protests from Blacks, Jews and Catholics) in which wide variation was permitted in a system of local control that honored local traditions. Teachers were confident of their moral authority and of the community's support. Americans—even those Americans whose children went to separate schools established for Blacks and whites—overwhelmingly assumed that the schools were instruments of achieving the nation's ideals. Rules for conduct were seldom written down. No one thought they needed to be: it was assumed everyone knew them as if by birthright.

These understandings were radically transformed in the next two decades. Community standards were challenged, often overturned. Teachers became confused about the basis of their moral authority in classroom and hallway. Some resigned, and many more withdrew psychologically from the exercise of the moral oversight previously taken for granted. By looking closely at what happened in one urban school, this is the story I attempted to tell in my 1987 analysis of *The World We Created at Hamilton High*.

Bureaucracy Replaces Morality

Hamilton High analyzes the effects of a transformation in authority relations. We can see this transformation as an implosion of regulation, a dramatic consolidation of the centralization underway since the end of the nineteenth century. This dramatic recentering of the system rapidly completed the shift from traditional to legal-bureaucratic controls. It went beyond the dictates of administrative efficiency and coordination. Real power shifted as state and federal governments came to supply more than half the funds to run local districts.

The schools' special role in moral education and cultural change make this shift more than a subplot in the story of the rise of the modern bureaucratic state. The schools had been pivotal in the attempt first to make a certain kind of republic possible, then to find a common ground on which the democratic faith could prosper.

The alternative is an educational community in which all are bound by some transcendental ideals and common commitments.

By the 1960s, however, it was clear to some that while the nation had prospered, the democratic faith was imperiled. The society turned most powerfully to the schools as a means of writing a new social compact. The schools were seen as the primary means to remedy unacceptable inequalities of status, income, access, treatment, or participation, whether owed to race, ethnicity, sex, emotional or physical disability, or (to some extent) age. Precisely how much inequality was acceptable and exactly what constituted the remedy were never settled (and probably never will be). But the balance usually lay on the side of equality of opportunity rather than of result, and the society looked to the school as the principal engine of opportunity.

School as Bastille

What happened inside Hamilton High was conceptualized as a series of social revolutions—the first and most powerful a racial one. More than any other institution, schools experienced the anger born of generations of racism. In many (including Hamilton High), the dammed-up emotions spilled over into violence. As the civil rights leaders in the North exposed the complicity of schools in maintaining gerrymandered boundary lines, Black parents showed in boycotts that they no longer gave their assent to the moral authority of teachers or school officials. White teachers were no more guilty than the rest of white America for growing up in a society that accepted widespread racial inequality, but their consciousness was raised in face-to-face encounters in ways few others experienced. For many, self-abnegation and doubt were more disabling than rejection by Black parents. They no longer trusted their own moral compasses.

In the short term, ironies abounded. Blacks were brought together with whites only to discover how far apart they really were. Tracking systems were abolished overnight—and replaced by widespread increases of elective options in which the students tracked themselves. The early years of "integration" increased racial animosities as the racism of Black militants and white ethnics resulted in severe segregation within the schools. In some schools, officials attempted to meet racial "quotas" of equal expulsion rates for Blacks and whites and meted out unjust discipline. Achievement scores and real estate values fell. Whites fled.

Twenty years later, things were very different. Scores had risen, neighborhoods had stabilized. But in the short term, integration meant chaos.

The racial revolution was just one—perhaps the most powerful in its immediate effects—of an interlocking set of egalitarian movements: for mainstreaming, children's rights, sexual equality. These were occurring almost simultaneously against the backdrop of a cultural revolution and America's "loss of innocence" over its role in the Vietnam War. Each of them challenged and partly undid the moral au-

thority of the school.

Within this set of movements, the interaction of the children's rights movement with the struggle to desegregate schools deserves notice. Desegregation involved massive, often involuntary, transfers of pupils, radically changing the mix of families in each school and rupturing the informal bonds and understandings that schools build with their clienteles. Although desegregation had high moral aims, it was often designed and implemented by courts, lawyers, and central office experts as a matter of meeting quotas and guidelines. The message to schools seldom came with any appeal to the heart. Almost always, it implied, "We don't trust you to do this right and doubt you know how even if you wanted to."

Outside experts would design the workshops for teachers; lawyers would develop the plans and write the guidelines. There was an absence of moral glue, vision, emotional bonds, and social ties. Relations with students became much more legalistic as school officials feared being overruled.

At the same time, the children's rights movement was pressing a whole new set of due process guidelines on principal and teachers. The traditional individualism of the American child ("Nobody can tell me what to do") became "Don't you dare touch me, or I'll have you arrested."

In many schools, the psychological climate deteriorated markedly. Teachers grew more reluctant to enforce norms against cheating, stealing, or verbal or physical abuse unless they felt they had evidence that would stand up in court, so to speak. In most schools, the staff of specialists and technicians, each ministering to different needs of pupils, grew rapidly. So did the number of new teachers: the student body was expanding, while teachers unable to cope were resigning in large numbers.

The moral order of the typical public school became increasingly legalistic and bureaucratic in its reliance on written rules within a centralized administrative hierarchy and in its formalism, impersonality, and emphasis on legal due process. It was individualistic in its accent on freedom of choice in intellectual and moral realms and in its avoidance of imposing any but minimal ideals guiding conduct or character development. It was technicist in its assumption that there were technical solutions to most problems—sex education, drug education—and that these could be pursued without reference to transcendent values or priorities.

A New Consensus

Our alternative now is not the repeal of the modern world. Certainly, individuals must be protected against the abuse of authority, including at times their own parents or teachers. The privileged frame of the therapeutic relationship can be a helpful means of evaluating distortions of traditional moral discourse. And both values clarification and moral reasoning are valuable and necessary activities in the proper context.

Talk of the public good has too often been a screen behind which schools have been made to serve the interests of the few.

The real alternative is an educational community in which all are bound by some transcendent ideals and common commitments to an articulated sense of the public good for which public education exists. This community is one in which the responsible adults honor individual rights and procedural guarantees but do not believe these are adequate to express the ideals toward which the community strives. It is a community in which therapeutic contracts cannot override some kinds of common expectations and in which some values are not endlessly open.

This alternative is a school with a strong positive ethos. It affirms the ideals and imparts the intellectual and moral virtues proper to the functioning of an educational community in a democracy. It attempts to commit its members to those ideals and virtues, in at least a provisional way, through the espousal of goals, exemplary actions and practices, ritual celebrations, and observance of norms.

The most serious objection to this ideal school is that many parents and teachers not only believe it impossible to attain, but prefer the world they have. Whether reluctantly (because they believe that the moral world of the contemporary public school is the best compromise we are likely to obtain) or willingly (perhaps because they are strong relativists), they embrace a nonjudgmental educational world of individual rights and contractual exchange in which impersonal bureaucratic rules guarantee free access to market choices. They are satisfied with or actively prefer a public school culture based primarily on procedural guarantees and individual choices unbounded by (or at least only minimally connected with) any overarching ideals.

These parents and teachers are keenly aware of the other kinds of reductions that take place when the heavy hand of moralism, bigotry, and class prejudice is laid on public schools in the name of character ideals. Talk of the public good has too often been a screen behind which schools have been made to serve the interests of a privileged few.

No one who has read history can fail to be impressed by the force of this objection. On the other hand, what choice is left to those of us who fear the corruption of education in its contemporary drift toward an impersonal, technicist, rule-bound bureaucratic model? Is private education our only refuge? Must those who wish to pursue the creation of what I have called a strong positive ethos abandon the public sector?

I am not ready to conclude that. Nor do I believe that those who sincerely raise strong objections can be overridden or ignored. Hence I presume that there will be some real choice among models of public schooling. I do not think it either desirable or practical to attempt to shut down the minimalist bureaucratic model. But I hope it will

not remain the only, or even the dominant, model.

Three problems or objections lie in the way of the development within the public sector of schools with a strong positive ethos. The first is to show how teachers can take responsibility for addressing moral issues (to show, in fact, that they cannot avoid doing so) while respecting First Amendment guarantees. The second is to demonstrate that teachers need not—in fact must not—address all moral issues, but only those virtues and ideals that are proper to the functioning of an educational community. They need not agree on capital punishment, for example, but they ought to be clear about honesty.

Indoctrination: Imposing Whose Values?

The third objection is the fear that this emphasis on virtues will lead to indoctrination. In many school systems, school boards have adopted policies forbidding teachers to "impose their personal values" on students. School board lawyers are inclined to cite the language of the Supreme Court in declaring unconstitutional a compulsory Pledge of Allegiance to the flag: "If there is any fixed star in our constellation," Justice Robert H. Jackson wrote on behalf of the majority, "it is that no official, high or petty, can prescribe what shall be orthodox in politics, nationalism, religion, or other matters of opinion or force citizens to confess by word or act their faith therein." But the Court in this case was arguing for freedom of religion, freedom for children of Jehovah's Witnesses not to be compelled to make a pledge of loyalty to an earthly government that they felt violated the tenets of their faith. The Court has also ruled that schools may not restrict the free-speech rights of students even when they wish to oppose government policy, as when it upheld the right of students in Des Moines public schools to protest the Vietnam War.

But protection of free exercise of religion and of freedom to criticize government or school should not be interpreted to mean that all moral practices are a matter of personal opinion. It is possible to define the moral practices that are necessary underpinnings of educational activity in such a way as to respect differences of opinion on other moral questions such as abortion or gambling. These necessary practices then become not personal values but the justifiable practices and virtues of an educational community.

Yet the skeptic may press:

> Doesn't this involve the imposition of some values on the young? You are telling students what to think and feel about certain basic moral matters. Educators should aim at developing critical intellect and personal autonomy. What is being suggested here would short-circuit true inquiry and amount to a form of indoctrination.

We can define the moral practices necessary to educational activity in a way that respects differences of opinion on other issues.

The skeptic has a point. It is true that educators must impose some standards even before children have reached an age to reason about them. After all, even a small child might strike a hammer blow at the temple of a sleeping adult. But we are also suggesting that in high schools, when students can think for themselves in good measure, adults will, by example and conviction growing out of their responsibilities as educators, be teaching students to uphold certain moral standards and ideals.

What can save this activity from degenerating into indoctrination is the manner in which these standards and ideals are taught. If adults teach them in an authoritarian manner as a fixed and unvarying code that must be stamped into the consciousness of children, they can be charged with indoctrination. They will be saved from such an indictment, however, if they give the reasons for the standards, based on universal principles undergirding the educational endeavor, and if they present them as provisional.

By provisional, I do not mean that the standards are so tentative as to be made up anew each week, but that moral standards are always in some sense in the process of development. As R. J. Peters has written, it means that teachers initiate students to such beliefs in a nonbehavioristic way, not fixing a particular moral content for life, but showing students that as adults they will have the responsibility and freedom to reevaluate those beliefs.

This means, for example, that while teachers will uphold the ideal of equality, they will also take pains to show how the ideal of equality of educational opportunity was felt to be satisfied in the nineteenth century by providing common schools open to all, while today equality embodies the concept that compensatory or additional educational services must be provided to some in order to meet everyone's needs.

Further, it means that teachers, while insisting on respect for the dignity of others within the classroom, will also show that respect is partly a cultural concept, subject to change and revision. They may note, for example, that while the Supreme Court ruled in favor of the Jehovah's Witnesses in 1943, it had earlier supported a school board's contention that "the act of saluting the flag is only one of many ways that a citizen may evidence his *respect* for the government" and thus requiring the salute "did not violate any constitutional rights." In overruling this opinion, the Court held that Jehovah's Witnesses and other children who feel in conscience that they cannot recite the pledge are exercising their democratic rights and are guilty of no disrespect.

These examples can only illustrate the responsibility that teachers have to convey the organic nature of ideals without surrendering to a meaningless relativism. It is not possible to go be-

yond examples, to be exhaustive, for each faculty will have to come to its own understanding of these questions. The state cannot perform this task, for that would reduce the teacher's role to inert reception of a fixed code.

There will be abundant overlap in the kinds of ideals and virtues that schools affirm, but there will also be differences in their breadth and emphasis from school to school, depending upon local traditions and the state of moral development of the faculty itself. The adults primarily responsible for a given educational community should be continually in the process of reflecting upon and renewing their world. There are no shortcuts. Stimulating and guiding such reflection is a crucial aspect of school leadership.

For Further Reading

"Deadly Neighborhoods: How the Underclass Has Been Misunderstood." Christopher Jencks. *The New Republic*, June 13, 1988. Here Jencks offers the analysis needed for moral standards described at the opening of this essay.

Fifteen Thousand Hours: Secondary Schools and Their Effects on Children. Michael Rutter and others. Harvard University Press, 1979. The authors examine 12 London schools with similar student bodies but very different climates and markedly different outcomes. They relate these outcomes to the ethos within the school and the degree of consensus achieved by the faculty about their cognitive and moral expectations for pupils.

The Good High School. Sara Lawrence Lightfoot. Basic Books, 1983. This classic study portrays the character and culture of half a dozen exemplary public and private schools.

Habits of the Heart: Individualism and Commitment in American Life. Robert Bellah and others. University of California Press, 1985. Drawing on extended interviews with a cross-section of middle class Americans, the authors of this study ask questions about the loss of a sense of community and how it might be reconstituted.

"Moral Education and Common Schools in America: A Historian's View." Carl Kaestle. *Journal of Moral Education*, May 1984. In this excellent account, Kaestle traces the historical development of the problem of moral education in American public schools.

The World We Created at Hamilton High. Gerald Grant. Harvard University Press, 1988. The story of what happened inside a real urban high school in the period 1953-1987 chronicles how teachers attempted to transform their school to create a strong positive ethos. The author, who taught in the school for two years, draws on both his research and that of students whom he trained to gather data about the moral life of their own school. Given these data, 12 teachers elected by their peers then made their own diagnosis of what changes should be made.

Single-Parent Families: How Bad for the Children?

BY K. ALISON CLARKE-STEWART

Researchers know many factors that make divorce harder for children to endure—and the school can't do much about them. But teachers can help keep school from being one more problem.

Six-year-old Nathaniel makes his own lunch before he goes to school. Nine-year-old Katherine comes home to an empty house and spends the afternoon watching television. Twelve-year-old Jason does the shopping, babysits for his younger sister, and sighs a lot. There's no question, children today do not live the protected, dependent existence that most of their parents—and teachers—did as youngsters. Responsibilities are thrust upon children at earlier and earlier ages. Expectations for their independence and achievement are high. Many of them experience daily stress.

One contributing factor in the complex web of contemporary economics and life-styles is the increased frequency with which children are growing up in single-parent families. A high proportion of these families are the result of divorce, and it is specifically on the distinctive situation of such families that this paper will focus.

Today, in the United States, one schoolchild in three has parents who are divorced. Thirty percent of these children live in stepfamilies. The other 70 percent live with their mothers or fathers alone.

What are the consequences of their parents' divorcing for children's lives, development, and achievement? Are these children "at risk"? If so, how much, and for how long? Should unhappy parents have stayed together "for the sake of the children"? Behavior problems observed in children from "broken homes" are often attributed to the parents' divorce, but is this always an accurate assessment? Are

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there ways that schools and teachers can help children with problems rooted in their parents' divorce?

As divorce has become more and more common in this society, researchers have asked these questions, and the answers they have come up with are both worrying and encouraging. Worrying, because their observations show that children do indeed suffer, and suffer severely, when their parents get divorced. Encouraging, because they also show that negative effects on children's psychological well-being are not inevitably long-lasting. Children can be helped through the painful transition of their parents' divorce to a healthy, happy, and well-adjusted life.

How Divorce Hurts

The effects of divorce begin long before the divorce itself, for both parents and children. In one study, observations of children as long as 11 years before their parents separated showed the effects of predivorce family stress. Boys in families in which the parents subsequently divorced were more impulsive and aggressive than boys in nondivorcing families. For parents, the effects begin to show in the years before the separation, through such symptoms as headaches, fatigue, weight loss, depression, anxiety, and mood swings—and these symptoms intensify after the separation. On a scale of stressful life events, separating from a spouse is second in intensity only to the death of a spouse. Over 40 percent of the adults going through a divorce report suffering from at least five physical or psychological symptoms; one-fifth need psychiatric help or hospitalization.

For children, too, the initial reaction to their parents' separation is traumatic. Children whose parents get divorced are initially distraught, shocked, afraid for their own futures. It doesn't make it any easier that one in three of their friends may be in the same boat. Losing *their* mother or *their* father is devastating. Their world turns upside down. Divorce is most devasting for "innocent victims"—those who have no control over its initiation—and children never initiate divorces.

In one study, interviews with children whose parents were getting divorced showed that none of them were happy about their parents' divorce, even if the parents were often in violent conflict with each other. More than three-quarters of the children opposed the divorce strongly, and even five years later one-third were still disapproving, dissatisfied, and intensely unhappy. The nuclear family is all the child knows, so children inevitably experience a strong feeling of loss—of the family unit, of security, and of their fairy-tale fantasy of "happily ever after."

After the divorce, the losses continue. For some things in life—and parents may be among them—two is always better than one. One parent can be in only one place at a time, and for parents going through a divorce, that place is most often work, therapy, or the lawyer's office. One parent can have only one point of view, and for divorcing parents that point of view is most often their own. One parent can model only one gender role, give only so many hugs, offer so much discipline, and earn so much money.

Not one child was happy about a family divorce, even if the parents were often in violent conflict with each other.

Parents going through a divorce and the period following it are overwhelmed, overworked, and disorganized. There is not enough time for work or for themselves. They are absorbed in their own problems of survival, in their involvement in work (for many women, for the first time), in dating, in self-improvement, and in the search for support.

The children are often neglected. In the first couple of years after the divorce, children have less regular bedtimes and mealtimes, eat together as a family less, hear fewer bedtime stories, and are more often late for school. Discipline is less consistent, positive, and affectionate. And perhaps most salient of all, the aftermath of divorce brings economic disaster for most mothers and children.

Recent studies in a number of states have shown that after a divorce women suffer a drastic drop in income and standard of living—in California, for example, a drop of 73 percent. Men's standard of living improves—42 percent in the states included in this study. Most women are not prepared to support themselves financially, even if they worked before the divorce. They commonly receive inequitable divorce settlements, no lifetime alimony, and a limited amount of spousal and child support (often not paid). They have few job prospects, no job histories, limited earning potential, and no careers. Because 90 percent of children in divorced families live with their mothers, this economic disaster directly affects the children. No-fault divorce has created a new impoverished class. More than half of poor families are made up of single mothers with children—and a sizable proportion of these mothers are divorced.

But it's not just the poverty that's hard to live with. It's the *drop* in income—and the more affluent the family, the harder that is to handle. Giving up Junior League friends to live on Hamburger Helper and food stamps is not only economically stressful, it's demoralizing as well.

Small wonder that children from divorced families are more likely than others to become juvenile delinquents, psychiatric patients, suicide victims. More than half have trouble in school—the result of depression, anxiety, guilt, loneliness, low self-esteem, low achievement, and bad behavior.

Getting over Divorce

The good news is that these effects are not inevitable and they don't have to be long-lasting. Divorce is a painful, negative experience for everyone involved. But people—children especially—are resilient, and time heals. The first year after the divorce is the worst emotionally, and it gets worse before it gets better. But by two or three

years after the divorce, in most families, routines are back to normal, physical symptoms have disappeared, the intense psychological stress is over, and adults and children have improved self-esteem and are functioning competently.

The process of adjusting to divorce and subsequent life in a single-parent family is smoother and easier for some adults and children than for others. Some individuals bounce back within a year or two. Others never really get over the experience. Although children whose parents get divorced are "at risk" for psychological and behavioral problems, these problems are not *inevitable.* Researchers currently are probing into the conditions and personal qualities that determine whether a child makes a quick and complete recovery from divorce and a positive adjustment to life in a single-parent family. They have found a number of factors that seem to be critical.

Age. One important determinant of children's reactions to their parents' divorce is age. The younger a child is, the better the prognosis for a complete adjustment. Preschool children don't know what "divorce" is. They don't understand what's going on, and they react to their parents' separation with bewilderment, fear, and regression. But in the long run, they are the most likely to be emotionally unscathed.

Very young children have spent less time in a conflicted family. Their familiarity with and attachment to the family unit is less. And the parents themselves are younger, which makes their recovery easier.

Children who are 6 to 8 years old when their parents divorce understand what is going on better than younger children, but they hurt more. They yearn for the lost parent, and they feel rejected, torn in two, angry at the custodial parent. They don't have a well-developed sense of time, nor do they understand the nature of blood ties. So when they are with one parent they miss the other. They are afraid that while they're apart, the missing parent will find another son or daughter and forget them.

Over the long run, a bare majority of these children adjust fairly well. In a study of 60 divorced families in California by Judith Wallerstein, for example, 10 years after the divorce, 40 percent of the children who had been in this age range at the time of divorce were still functioning poorly.

Children who are 9 to 12 years old when their parents divorce are more upset than younger children. Their parents tell them more about the reasons for the divorce. They often align with one parent (usually the custodial parent) against the other. They are the most likely of all to suffer psychosomatic symptoms of stress and suppressed anger and to have problems in achievement and conduct at school.

One parent can model only one gender role, give only so many hugs, offer so much discipline, and earn so much money.

An increase in household responsibilities and the need to make money often thrust these children into a precocious independence that may include premature sexual awareness or sexual activity.

Similarly, young adolescents, 13 to 16 years old, may be pushed too fast into independence by their parents' divorce. At the best of times, early adolescence is a vulnerable period of shaky self-esteem and conflicts over autonomy. A divorce may precipitate an adolescent's dropping out of school, getting pregnant, or getting into trouble with the law. Young adolescents react to their parents' divorce with unrealistic anguish, anxiety, and outrage: How could you do this to me? Along with the children who are 9 to 12 at the time of the divorce, they have the bleakest long-term outlook. In Wallerstein's study, slightly over half the children in this age range were doing poorly 10 years later.

Sex. For a variety of reasons, divorce is harder on boys than on girls, and boys are more likely to have problems. Boys are more vulnerable in general, and boys—who, like girls, are usually in a mother's custody—are most likely to lose the parent who is their gender-role model and the stronger authority.

Family competence and confidence. Adults who are more intelligent, assertive, self-assured, well-educated, creative, imaginative, mature, emotionally stable, tolerant of frustration, good at coping, willing to take risks, and socially bold are better able than most to deal with divorce and single parenthood, and so are their children.

Similarly, children with strong personal qualities tend to handle the divorce situation more easily. Ironically, however, the children who are most likely to need such strong personal qualities, because their parents are getting divorced, are least likely to possess them, because they are more likely to have grown up in an unharmonious family environment.

Economic situation. Perhaps the single best predictor of the long-term consequences of divorce is the family's financial situation. The drastic drop in income and economic insecurity that accompany many divorces present severe challenges for both parents and children. Stories of single-parent families struggling for survival—living on cold cereal for dinner and trying to keep up the mortgage payments or moving from opulent abodes to tiny apartments in impoverished neighborhoods—are common. These changes inevitably lead to depression and resentment. For children, the economic drop packs a triple whammy: they lose material objects and opportunities, they lose status with their peers, and they are victims of their mothers' distraction and depression. Economic factors have a powerful effect on parents' and children's adjustment to divorce.

Parents' caring and availability. Children's relationships with both their parents after the divorce are very important for a healthy adjustment. These relationships, researchers have found, depend in large part on the child's continuing contact with both

parents and on the ability of both parents to provide adequate supervision and consistent, authoritative discipline balanced by ample affection.

Because good relations with both parents have been found to be important for children, many states now award joint or shared custody of children to divorcing parents. Such arrangements sound ideal. The children do not "lose" a parent. They receive a more balanced exposure to two adults. Both parents continue to contribute fully to childrearing. And there is a greater likelihood that the expenses of child support will be shared. For the parents, there is regular and reliable relief from child care as well as the opportunity to make important decisions about the child and to offer daily, not Disneyland, care.

Little is known, however, about whether children really do better in joint custodial arrangements. Existing research is based on small, self-selected samples, and the results of different studies are not entirely consistent. There do seem to be some benefits of joint custody in terms of stress, satisfaction, self-esteem, and symptoms—if joint custody was the choice of the parents rather than of the courts. There is also some evidence that parents with joint custody are less likely than parents with sole custody to return for relitigation of the custody arrangement—again, if they themselves originally chose joint custody.

Court-ordered joint custody, however, may not have any of these benefits. Recent evidence, again collected by Judith Wallerstein, suggests that two years after the divorce, children in court-ordered joint custody arrangements are not doing as well as children in families where the court ordered sole custody. A possible reason is that in the families with court-ordered joint custody, the parents retained a rigid (court-ordered) 50-50 custody split, while only half the couples who had chosen joint custody were still following a 50-50 split. The others had slipped into the more conventional weekday/weekend division of time.

Whatever the legal arrangement, what is most important from the children's perspective is the *quality* of their relationship with both parents. If either parent disappears from the family, if either parent is rejecting, the child will suffer. To promote their children's satisfactory adjustment, parents must look out for the children's needs as well as their own, and not become overly self-absorbed—a challenge when they, too, are hurting.

Parents' current relationship. Children also suffer more if their parents are hostile toward each other. Some divorce researchers have gone so far as to suggest that the reason children of divorced parents have problems is not that they are separated from one of their parents but that their parents continue to fight overtly—sometimes violently—in front of them. In numerous studies, parental conflict or cooperation before and after the divorce has been found to predict both parents' and children's psychological well-being. It is most damaging to children when parents go on fighting and neglect the child or use the child as a pawn in their continued battling—for example, through custody relitigation or child-snatching.

What is most important from the child's perspective is the *quality* of his or her relationships with both parents.

Stability of circumstances. Another factor that makes adjusting to a divorce difficult for children is the number of changes that inevitably accompany divorce. Moving to a new town and leaving old associations behind immediately upon separation may be the best thing for the parent, but it is not usually best for the child. The more changes children experience—moving to a new neighborhood, starting a new school, having mother start a job, going through repeated separations and reconciliations, living with changes in the custody arrangement—the harder it is to adjust. When parents remarry and the child becomes part of a stepfamily—which happens 1,300 times every day in this country—the change may, again, be good for the parent's mental health but not necessarily for the child's, since it adds new relationships, new conflicts, new rivalries, new uncertainties, and new complexities.

Despite the problems of separation and transition to a new family form, in certain limited ways children can benefit from change. Children who move to a new class or a new school a year or two after the divorce, for example, have had a chance to adjust to living in a divorced family. The change gives them the opportunity to shed any bad reputation they may have made for themselves during the time of emotional crisis and go on to more positive relationships and achievements.

Access to outside help. Finally, the parents and children who adjust best to divorce are those who get help. Divorce is a trauma it's hard to go through alone, and adults and children alike benefit from the opportunity to talk about their experiences to sympathetic and supportive listeners. These listeners may be family members, friends, teachers, counselors, therapists, or other people who are going through divorce. Social support, from either a network of emotionally supportive and accepting friends or participation in social or professional groups, has been found to buffer stress. What's important is that divorcing parents and children be assured that they are worthy, that they are loved, and that things will—eventually—get better. If they can be given advice about how to speed the process of things getting better, or if they are provided with tangible services, from laundry to loans, this also is helpful.

What Can Teachers Do?

In any year, in any class, the odds are high that there will be some children who are going through some phase of a parental divorce or remarriage. Teachers may be puzzled, annoyed, or completely frustrated by the effects of these events on the chil-

dren's behavior in school. What can they do to assist these children and allay their own frustrations?

For one thing, teachers should try to be well-informed about what to expect from children under these circumstances. They should know that children, especially boys, are likely to act up and act out, to be distracted and withdrawn, to let their schoolwork slide, for as long as two years after their parents separate. During this time, these children, and their parents, need support and sympathy, not judgmental evaluations and criticism.

Teachers can attend workshops, read books, talk to their colleagues about the problems divorce creates and about possible solutions to those problems. Many schools now offer group programs for children whose parents are divorced, and there is growing evidence that these programs are helpful in children's adjustment.

Children whose parents divorce go through a slow and painful process of coming to understand and cope with the divorce and their new lifestyle and often reduced circumstances. This process can be guided—and children's adjustment can be eased—but time and support are necessary.

Children need to acknowledge the reality of their parents' separation, disengage from the parents' conflict, resolve their own feelings of loss and anger, accept the permanence of the divorce, and achieve realistic hopes and dreams for themselves. All this takes time. Classroom teachers can give children whose parents have just split up a break for some period of adjustment and transition, reducing their stress with lighter assignments and extra attention. Being patient and sympathetic is likely to pay off in the end.

Another way teachers can alleviate the problems created by divorce is by raising the consciousness of their other students about what divorce means and about what children whose parents are divorcing might be experiencing. Later on, teachers can help children whose parents are divorced by offering them a fresh start after they have made the initial adjustment to the divorce. In new classes or workgroups, their fellow students won't be biased by any bizarre or disruptive behavior they may have shown in the immediate aftermath of the divorce.

Looking more toward the future, teachers should do as much as they can to prepare their students for adult life in the twenty-first century. Two points are particularly important here. Students need preparation for the difficulties and challenges of marriage and family life, so that they won't take lightly the decisions they'll be making about when and whom to marry and when to have children. Girls need preparation to pursue lucrative careers and to be self-supporting. This is no longer a feminist issue alone. It is an issue of economic survival.

Divorce is a social phenomenon that affects us all. It is up to all of us, then, to help children and their parents cope with it as well as they can.

For Further Reading

Divorce. Sharon J. Rice and Patrick C. McKenry. Sage Publications, 1988. A systematic summary of recent research on the sociological and psychological processes involved in divorce.

Growing Up Divorced. Linda Bird Franke. Linden Press/Simon & Schuster, 1983. This is one of the many books available for parents—to inform, to educate, and to assist in their challenging task of rearing children after divorce. It provides an excellent review of the research demonstrating how divorce presents a series of crises for children, depending on their age and sex.

Interventions for Children of Divorce: Custody, Access, and Psychotherapy. Walter F. Hodges. Wiley, 1986. For those who are interested in the kinds of therapy and support programs currently available for children of divorce, this book offers an introduction. It also gives a thorough review of research showing the effects of divorce on adults and children.

Mothers and Divorce: Legal, Economic, and Social Dilemmas. Terry Arendell. University of California Press, 1986. *The Divorce Revolution.* Lenore Weitzman. Free Press, 1985. The sociologist authors of these books explore the dire economic and social consequences of divorce for modern middle-class single mothers. Both call for drastic reforms to make divorce legislation more equitable for men and women and to provide adequate support for child rearing.

"Single Parent Families: A Bookshelf: 1978-1985." Benjamin Schlesinger. *Family Relations,* vol. 35, pp. 199-204, 1986. This article lists 80 books and special issues of journals on single parents that appeared between 1978 and 1985. A hint of the vast literature available on this subject, this annotated list suggests where to start reading.

"Single Parenting: A Filmography." Lee Kimmons and Judith A. Gaston. *Family Relations,* vol. 35, pp. 205-211, 1986. This annotated listing of films provides teachers with a description of a broad range of available films, filmstrips, and videotapes that deal with the single-parent experience. All would be useful for classes, support groups, or workshops.

Teachers and Cultural Styles In a Pluralistic Society

BY ASA G. HILLIARD III

Is matching teaching styles to students' cultural learning styles the answer to low achievement among "minority" students, or an excuse not to teach all students in effective ways—or both?

Educational dialog in recent years has given substantial attention to the question of the importance and precise meaning of "style" in teaching and learning, particularly for "minority" groups. Style differences between teachers and students and between students and the curriculum have been cited as explanations for the low academic performance of some "minority" groups. Just as "one person's meat is another person's poison," however, one person's explanation is another person's excuse.

Predictably, a debate has ensued over the part, if any, that style plays. There has, however, been little opportunity for a rigorous and systematic scrutiny of applied pedagogy that incorporates insights from the style theorists. As a result, much of the discussion about style has taken on more of the character of rhetoric than of scientific pedagogy.

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In education, we frequently do not enjoy common professional terminology. We use the same words some of the time, but we do not have common meanings for those words. This problem is particularly acute where the topic is style. We clearly need to find

a new way to talk about a somewhat complex set of realities. Before we proceed, certain relevant questions must be answered: Does style exist? What is style? Is style the property of groups, of individuals, or of both? Can any group be identified by a particular style? Is the style of a group pedagogically meaningful?

Educators sometimes appear to be caught on the horns of a dilemma. They are called upon to be sensitive to the styles that the students in their classes present—and warned not to stereotype groups of people. All individuals deserve, we are told, to be able to reveal themselves as they really are. We are not to prejudge students. Are these directives in conflict with each other?

Culture, Race, and Class

Definitions of culture differ widely, even among professionals such as anthropologists. I will offer a simple working definition that contains the essence of others. This definition does not attempt to enumerate all the parameters of culture or offer a theory of its dynamics, yet it should be useful here.

Paulo Freire, the gifted Brazilian educator, has defined "culture" as "anything that human beings make." In essence, Freire sought to make primary the distinction between what is "nature" and what is "culture," between what is made by humans and what is not. This definition should leave the user with a certain sense of the arbitrariness and the equivalence of the many things that many different peoples make. For example, the Chinese, English, and African peoples all make music, but each does it differently. Similarly, each people has a distinctive way of making languages, philosophy, music, symbols, stories, poetry. It is an error to think of one group's cultural creativity as superior to that of another. The two merely differ.

People choose to make things out of the elements available to them in their environment, in keeping with their motivation to do so and their historical frame of reference. Any cultural characterization of a person or group is, then, a statement about the results of human choice, not about natural properties, such as mental capacities.

Above all, an understanding of culture should bring a sense of the profound difficulty of coming up with cultural universals. Some educators and behavioral scientists have committed what social psychologist Wade Nobels has called the scientific "error of transubstantiation." That is the error of attempting to interpret the cultural substance of one group in terms of the cultural substance of another. In psychology, for example, measurement with culture-bound instruments may be thought to provide information about intellect, cognition, personality, or self-concept. It might in fact, however, simply assess cultural assimilation or similarity.

I remain unconvinced that the explanation of the low performance of "minority" group students will be found in behavioral style.

A human group shares ways of doing things: Simply put, groups share cultural patterns. Culture is what gives ethnicity its strength and meaning. Culture provides group members with a deep sense of belonging and often with a strong preference for behaving in certain ways.

Other means of designating groups may not generate this type of identity and feeling at all. For example, belonging to the group of Americans who are 18 years of age, who owe library fines, who are five feet eleven inches tall, and who moved to Washington State last year may not be accompanied by any real group feelings at all.

The cultural dimension, then, is very important to our discussion of style. Discussions of cultural matters in education, unfortunately, suffer from a widespread tendency to confuse race and class with culture. These may be associated, but they are not synonymous. A person of the Black race, for example, may or may not be closely identified with the mainstream of traditional culture in the Black community. In any given society, members of a race that tends to share a common culture may, because of racism or other forms of oppression, tend to occupy the bottom rung of the economic and political ladder. But the culture of the group is not defined by its class: there are many cultural groups within every class level, just as members of one cultural group may represent different classes.

Knowing race and class, then, the professional is obligated to look further if a student is to be understood. In a classic 1977 book about culture and style, Edward T. Hall emphasized a very important characteristic of culture. It is, he says, "invisible." Most of us are profoundly unaware of our cultural patterns. We experience them as normal or natural ways of acting, feeling, and being. According to Hall, we are most able to know ourselves culturally when we immerse ourselves in exotic cultures—cultures so different from our own that we are forced to understand that there is more than one way to be "natural."

Such insights help us begin to appreciate the subtler differences among racial and ethnic groups in the United States, which tend to overlap each other culturally to such an extent that the cultural commonalities tend to drown out the equally potent cultural uniquenesses. Any meaningful discussion of style thus requires a highly sophisticated sense of cultural dynamics.

Style

Human beings have an infinite variety of options in organizing and using the environment. Over time, individuals and groups tend to develop habitual ways of responding to experience. In individuals we call the sum of these patterns "personality." Perhaps the best way to think about culture—or that aspect of culture we call "style"—is to consider it the "personality" of a group.

Scientists from many academic disciplines have reported amazingly similar findings based upon their observa-

tions of different aspects of group styles. They still, however, use different terminology. Brain researchers talk about "left brain" and "right brain" behavioral patterns. Psychologists such as Rosalie Cohen talk about "analytic" and "relational" cognitive styles. Anthropologists such as Warren Tenhouten have spoken about "science" and its "mirror image." Psychiatrists such as David Shapiro have noted "obsessive compulsive" versus "hysterical" behavioral styles. Strikingly, the specific descriptors of the behaviors that fall under the various labels for style are quite similar—sometimes identical—to one another.

As a simple definition of style, I propose "consistency in the behavior of a person or of a group that tends to be habitual"—the manifestation of a predisposition to approach things in a characteristic way.

Although a few investigators seem to be interested in seeking a biological basis for style, I have found it more useful to focus on the cultural basis. Style is learned. Our understanding from learning theory therefore applies here—for example, learned patterns can be either changed or augmented.

Educators have had a difficult time accepting the existence of varieties of culture and style. Many Americans have had a kind of ideological commitment to the notion of the nation as a "melting pot," as both an ideal and a reality. Some have a very hard time managing simultaneously the ideas of democracy on the one hand and cultural pluralism on the other. Yet there is no conflict between these two concepts. In fact, one test of a democracy may well be the degree to which it provides an environment within which religious pluralism, political pluralism, and yes, cultural pluralism can exist. In any event, ample empirical data attest to the reality of cultural pluralism.

Cultural style, then, cannot be ignored. But precisely what are we to make of it?

Several important things may be said about style. First we must remember that style should be considered on its various levels—cognitive, learning, and behavioral. The following general points may be made.

- Styles are learned, not innate.
- Like other learned behaviors, styles can be changed.
- A person can learn to use more than one style, and to switch when appropriate. When this talent is applied to languages, linguists call it "code switching."
- Style tends to be rooted at a deep structural level and so may be manifest in a highly generalized way. For example, you can predict that cognitive, learning, and general behavioral style will follow the same rules.

We may say, then, that behavioral style is an aspect of culture—"group personality"—and say certain things about the nature of style. What does this mean for teaching and learning?

A Question of Style—Or of Expectations?

It is one thing to show that "invisible culture" is real. It is quite another thing to show that culture is meaningful in pedagogical terms.

It is widely assumed that the mere presence of style requires a pedagogical response, especially at the point of applying specific teaching strategies. It is also widely believed that there already exist well-articulated, appropriate teaching strategies that are differentiated from each other and that can also be characterized in stylistic terms—that good matches can be made between teaching and cognitive or learning styles. It is widely believed, moreover, that such matches ought to be made and that when they are made, teaching and learning will be more successful.

These ideas, while not necessarily held by a majority of teachers, are nevertheless intuitively satisfying to many. But precisely where in the teaching and learning interaction does style inform pedagogy?

I have been an educator for more than 30 years. During most of that time I have been a teacher educator. I have had the opportunity to observe thousands of teachers. I have had the opportunity to read extensively in the area of teaching strategies. I have

been interested in locating teachers and schools where students who normally are expected to have low achievement are actually helped to have superior achievement. Many of the students who have been helped are the same students who, some argue, require a unique pedagogical style to match their cognitive or learning styles.

Since I have been interested in behavioral style and have conducted research on the topic, I have taken every opportunity to focus my observations and to query teachers—both successful and unsuccessful ones—in order to determine, if possible, the role that style considerations play in the work of teachers.

What I have learned is that the behavioral style issue is important and useful in some limited circumstances—I will address them later—but that it is very premature to draw conclusions for classroom strategy based on style, or to prescribe pedagogical practice in a general way.

I do believe that greater sensitivity to style issues will make meaningful contributions to pedagogy in the future. Yet I remain unconvinced that the explanation for the low performance of culturally different "minority" group students will be found by pursuing questions of behavioral style. Since students are adaptable, the stylistic difference explanation does not answer the question of why "minority groups" perform at a low level.

In short, I believe that the children, no matter what their style, are failing primarily because of systematic inequities in the delivery of whatever pedagogical approach the teachers claim to master—not because students cannot learn from teachers whose styles do not match their own.

In fact, there is a protocol of interactive behaviors of teachers who, for whatever reasons, have low expectations for students. Excellent evidence for this conclusion can be found in the research summarized by Jere Brophy and cited by Eva Chun in 1988. The research shows that teachers tend to—

- demand less from low-expectation students ("lows") than from high-expectation students ("highs").
- wait less time for lows to answer questions.
- give lows the answer or call on someone else rather than try to improve the lows' response through repeating the question, providing clues, or asking a new question.
- provide lows with inappropriate reinforcement by rewarding inappropriate behaviors or incorrect answers.
- criticize lows more often than highs for failure.
- praise lows less frequently than highs for success.
- fail to give feedback to lows' public responses.
- pay less attention to lows and interact with them less frequently.

Children, no matter what their style, fail primarily because of systematic inequities in delivery of any pedagogical approach.

- call on lows less often than highs to respond to questions.
- seat lows farther away from the teacher than highs.
- use more rapid pacing and less extended explanations or repetition of definitions and examples with highs than with lows.
- accept more low-quality or more incorrect responses from low-expectation students.
- attempt to improve more poor responses from highs than from lows.
- interact with lows more privately than publicly.
- in administering or grading tests or assignments, give highs but not lows the benefit of the doubt in borderline cases.
- give briefer and less informative feedback to the questions of lows than to those of highs.
- use less intrusive instruction with highs than with lows, so that they have more opportunity to practice independently.
- when time is limited, use less effective and more time-consuming instructional methods with lows than with highs.

This range of teacher behavior toward low-performing students is only one aspect of an even larger reality. Another aspect has to do with the real world of pedagogy.

I believe most educators operate on the belief that our pedagogy is systematic, that there is a generally accepted professional practice. As mentioned above, we tend to believe that this practice can be differentiated. We imply exactly that when we group children in tracks or assign them to special education categories. But this assumption simply does not fit the empirical facts. The most accurate description we can give of present circumstances is that teachers generally have the freedom to create their own unique, ad hoc approach to the design of instructional strategy. Uniform strategies are generally not required. This fact alone would make it difficult to change in any consistent way the manner in which all teachers react to various styles, assuming that it were desirable to do so.

There may be very good reasons for using what we know about style in the design of teaching. This has less to do with matters of inequity, however, than with making pedagogy better for all. The traditional approaches to pedagogy have tended to be rigid and uncreative. They are far from exhausting the wonderful possibilities for teaching and learning.

The Uses of Style

Where, then, does this leave us? What can now be said about the utility of the style phenomenon for educators? I believe that the meaning of style for us at our present level of understanding can be found in four main areas.

First, the misunderstanding of behavioral style leads educators to make mistakes in estimating a student's or a cultural group's intellectual potential. The consequences of such errors are enormous, producing mislabeling, misplacement, and the ultimate mistreatment—inappropriate teaching—of children. If stylistic differences are in-

terpreted as evidence of capacity rather than as an expression of preference, a long chain of abuses is set in motion.

Some children, for example, develop a habit of focusing on the global characteristics of a problem rather than on its particulars: Others do the reverse. Ideally, a student would be flexible enough to do either. Since schools traditionally give more weight to analytical approaches than to holistic approaches, however, the student who does not manifest analytical habits is at a decided disadvantage.

Second, the misunderstanding of behavioral styles leads educators to misread achievement in academic subjects such as creative expression. Orlando Taylor, a sociolinguist and dean of the School of Communications at Howard University, has shown, for example, that there is often a gross mismatch between the storytelling styles of African American children and those of their teachers.

Many teachers from Eurocentric cultures have a linear storytelling style. Many African American children, on the other hand, exhibit a spiraling storytelling style, with many departures from an initial point, but with a return to make a whole. Many teachers of these children are unable to follow the children's coherent stories. Some teachers even believe that the children's stories have no order at all. Some lose patience with the children and indicate that they're doing badly.

Third, the misunderstanding of behavioral style can lead educators to misjudge students' language abilities. When students and teachers differ in language, teachers sometimes use their own language as a normative reference. They are regarding common English as *language*, instead of *a language*. As a result, any child who speaks a different version of English is seen as having a "language deficiency" rather than a "common English deficiency." This judgment makes a big difference in how the problem is defined. On the one hand, there is a deficiency in the student; on the other, there is an objective for instruction, with no suggestion that the student is somehow impaired.

Finally, the misunderstanding of behavioral style can make it difficult to establish rapport and to communicate. The literature on teachers' expectations of students is generally very clear. The images that teachers and others hold of children and their potential have a major influence on their decisions to use the full range of their professional skills. If a teacher mistakes a child's differing style for lack of intellectual potential, the child will likely become educationally deprived as the teacher "teaches down" to the estimated level. As I have mentioned, this involves simplifying, concretizing, fragmenting, and slowing the pace of instruction.

Using what we know of style in the design of teaching has less to do with inequity than with making pedagogy better for all.

What We Know of Style

There is something we can call style—a central tendency that is a characteristic of both individuals and groups. This style is cultural—learned. It is meaningful in the teaching and learning interaction. Students' style is not, however, to be used as an excuse for poor teaching or as an index of low capacity.

It is too early for us to say how or whether pedagogy (classroom teaching strategy) should be modified in response to learning styles. A proper sensitivity to style can provide a perspective for the enrichment of instruction for all children and for the improvement both of teacher-student communications and of the systematic assessment of students.

Educators need not avoid addressing the question of style for fear they may be guilty of stereotyping students. Empirical observations are not the same as stereotyping. But the observations must be empirical, and must be interpreted properly for each student. We must become more sensitive to style out of a basic respect for our students, for their reality, and for their tremendous potential for learning.

For Further Reading

Alternatives to IQ Testing: An Approach to the Identification of Gifted "Minority" Children. Asa G. Hilliard III. California State Department of Education, 1976. This report illustrates the contrast between African American and European style in music, religion, and language. ERIC Clearinghouse #EC 103067.

Beyond Culture. T.E. Hall. Anchor Books, 1977. Hall gives examples of the contrast between Western European style and Japanese style.

Keeping Track: How Schools Structure Inequality. Jeannie Oakes. Yale University Press, 1985. This study gives the best explanation I've seen for intercultural and interracial differences in academic achievement.

Placing Children in Special Education: A Strategy for Equity. K. Heller, W. Holtzman, and S. Messick. National Academy Press, 1982. The authors expose the shallowness of much assessment and the lack of differentiated pedagogy in schools.

"Sorting Black Students for Success and Failure: The Inequity of Ability Grouping and Tracking": Eva Wells Chun. *Urban League Review,* vol. 11, nos. 1-2, 1987-88. This report shows the nature of the different qualities of instructional treatment offered to low-performing students.

Testing African American Students. Special issue of the *Negro Education Review.* Asa G. Hilliard III, ed. April-July 1987. This collection explores dimensions of culture in the teaching and assessment process.

A Nation of Monolinguals, A Multilingual World

BY SARA E. MELENDEZ

For both immigrants and natives, monolingualism is a handicap. It's a national debility, too—but some thorny issues stand between us and a bona fide national language policy.

More than 2,700 separate languages are spoken in the world today. Some are spoken only by a few hundred or a few thousand people in remote, isolated areas. But there are 14 world languages that have at least 50 million speakers each. Chinese has more speakers than any other language—over 1 billion. The next most-used languages are English, Hindustani (spoken in northern India), Russian, Spanish, Japanese, and German. It is alarming how few Americans speak any of these languages other than their own.

The United States has a national interest in communicating effectively with the people who speak these other languages. Yet the United States continues to be the most monolingual of all the developed countries. We are indeed, as Senator Paul Simon of Illinois has called us, "the tongue-tied Americans."

The U.S. diplomatic service has a dearth of foreign-language-speaking personnel. So does the military. The results of this deficiency can be seen in our continually deteriorating relations with many of the world's non-English-speaking nations.

As long ago as 1978, the President's Commission on Foreign Languages and International Studies stated:

> Americans' scandalous incompetence in foreign languages also explains our dangerously inade-

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quate understanding of world affairs. Our schools graduate a large majority of students whose knowledge and vision stops at the American shoreline, whose approach to international affairs is provincial, and whose heads have been filled with astonishing misinformation.

The President's Commission believes that our lack of foreign language competence diminishes our capabilities in diplomacy, in foreign trade, and in citizen comprehension of the world in which we live and compete.

Of course, understanding another language alone will not eliminate hostilities—or the United States would not have fought a civil war, nor would Ireland be mired in seemingly never-ending conflict. But true proficiency in a language is commonly accompanied by greater understanding of the relevant culture, its values, its traditions, and what motivates its native speakers—all of which will inevitably lead to improved communication. An inability to understand the subtleties and nuances of the spoken and nonverbal languages of adversaries places us at a serious disadvantage in our dealings with them.

As the President's Commission recognized, our monolingualism also reduces our competitiveness in world trade. Our trade deficit is in the billions of dollars monthly. What's more, we're running deficits in our trade with nations that a generation ago were still underdeveloped.

The reasons behind this trade deficit are many: the lower wages paid in competing countries, the subsidies from governments to manufacturers in those countries, the uncompetitive rate of increase in productivity per worker, the superior quality of the products from competing countries, and the protectionist policies of those countries' governments.

All of these reasons may play some role, but they don't totally explain our difficulties in the world of trade. Another contributing factor may be the degree to which Americans remain embarrassingly monolingual. Most foreign business people dealing with the United States speak English, but precious few Americans dealing with foreign countries speak their languages. We have yet to learn that the best language of business is the language of the customer.

This lack of proficiency in languages other than English has led to some comical but costly disasters for American business projects. For example, the theme of a soft-drink advertising campaign in Thailand was translated none too skillfully from English into Thai. The resulting slogan: "X brand will bring your ancestors back from the dead." The campaign flopped.

Our unstated policies toward bilingualism and the teaching of foreign languages may not have mattered when we were busy developing a vast new country, or later, when we were the undisputed leader among industrialized nations and the only producer of many manufactured products. But in the multinational, multilingual world of trade of the late twentieth century, these policies are detrimental to our interests.

Learning English and developing a common language does not require unlearning or not learning other languages.

Our National Languages

Throughout most of the world, college graduates are at least bilingual and often multilingual. In Scandinavia, most high school graduates are trilingual. In fact, more than 200 million people the world over speak English as a second language. Yet the majority of our students never even study any language other than English, much less speak it with any degree of fluency. Even when they do study a language for a year or two, they never develop anything close to bilingual proficiency.

The United States has always shown some suspicion of bilingualism and speakers of languages other than English. Although we tout ourselves as a nation of immigrants, we demand that immigrants forget their native language and culture, assimilate into the population, speak the English language, and practice the English-based American culture.

As Diego Castellanos reports (in *The Best of Two Worlds: Bilingual-Bicultural Education in the United States*), George Washington wrote to John Adams questioning the value of free immigration, because immigrants "retain the language, habits, and principles (good or bad) which they bring with them." Benjamin Franklin, notes Castellanos, wrote in 1753 that German residents would "endanger the preservation of our language unless English schools were established."

Despite this concern for unity and for the preeminence of the Anglo culture and the English language, the framers of the U.S. Constitution did not see fit to include a designation of an official language, possibly because they believed that, with all the languages spoken in the colonies, such a declaration would create ill feelings and ethnic cleavage.

The United States has in fact never had a policy on an official language or any other national language policy. In fact, in the early days, German speakers were almost as numerous as English speakers. Official documents were printed in several languages—German, French, and Spanish as well as English. Schools were often bilingual, teaching children in the native language of their parents and English.

Striving to build a nation out of people from many nations and language backgrounds, the generations that followed seemed to regard a certain amount of nationalism, even arrogance, about our better values and better ways as necessary to forge a common goal. They considered English a unifying force for our nation. And the government found it easier to be able to communicate with all its citizens in only one language. But our zeal to make every U.S. citizen and resident English-speaking has obscured a basic fact: learning English—developing a common language—does not require unlearning or not learning other languages.

Our Monolingual Schools

Traditionally, Americans have not seen the ability to speak two or more languages as an asset. Perhaps this lack of interest can be explained by the size of the country: Americans could live their whole lives, even travel extensively, in the United States and never need to speak another language.

Public schools in the United States nevertheless started out with at least an unstated *laissez faire* policy toward teaching languages other than English. In 1910, at the peak of European immigration to the United States, 83 percent of secondary school students were studying a foreign language. But at the time, only about 6 percent of all students—a somewhat elite group—completed high school. What's more, 49 percent of these language students were learning Latin, seen as good training for anyone going on to study law or medicine, as well as a good foundation for understanding modern languages. Very few indeed were learning modern languages with the intent of becoming bilingual.

Then, during World War I, *laissez faire* gave way to xenophobia. Several states passed laws prohibiting teaching of, or in, any language other than English. But in the case of *Meyer v. Nebraska*, involving a teacher fired for teaching in German, the Supreme Court drew the line, ruling the state prohibition unconstitutional.

After the panic and fear of World War I, matters quieted down. Some high schools continued to teach Latin to their college-bound students. French and Spanish, in that order, were the next most popular languages. But few students became bilingual.

Still, a valuable innovation in foreign language teaching was already being tested. In the early twentieth century, we began to teach foreign languages in the elementary schools. In 1920 the Cleveland public schools began teaching French in the elementary grades, giving rise to what would become FLES (Foreign Languages in Elementary Schools). The FLES movement did not succeed in establishing permanent programs, however.

What's more, as Diego Castellanos points out in *The Best of Two Worlds:* "Ironically, while French was being taught as a curricular enrichment to Anglophone students in Cleveland, the nation's schools were still refusing to use foreign languages to teach children who could not understand English."

In general, throughout the massive immigration of Europeans into the United States between 1890 and 1920, public school districts around the country advocated assimilation and sought to eliminate the native languages of immigrant children. Schools worked hard to eliminate any trace of an accent in students' English. Even in the Southwest, where Mexicans had not immigrated but had been annexed into the United States, some states enacted prohibitions on the use of Spanish. Children were often punished for speaking Spanish in school.

Perhaps the framers of the U.S. Constitution thought that, with all the languages in use, an official one would cause ethnic cleavage.

Our ambivalence about foreign languages—and their speakers—is evident in the way our schools approach the foreign language curriculum. Generally schools at best require two years of foreign language study in high school. The result has been predictable: even those privileged to study a foreign language remain hopelessly monolingual.

Admittedly, U.S. schools never announced any intention of developing bilingualism in students—merely of exposing them to other languages. Even for students studying for a doctoral degree, our universities never mandated bilingualism. Instead, doctoral candidates have been merely required to pass a test that consisted mostly of translating passages to demonstrate that they could read seminal texts of the discipline in the original language. Many doctorate-holding Americans who suffered through those language courses and passed their examinations cannot construct a coherent sentence in the language they supposedly mastered.

In recent years, colleges have reduced or eliminated foreign language requirements, with a predictable precipitous decline in the number of students studying other languages. Foreign language instruction is also one of the first "frills" school districts eliminate in times of financial difficulty. On college campuses and in high schools throughout the country, countless foreign language departments have closed down.

At present, one of the most visible responses to the increasingly multilingual nature of our society and economy is negative. Over 200 years ago, the framers of the U.S. Constitution refrained from declaring English the official language of the United States. Evidently, their fear of ethnic cleavage was greater than their fear of possible disunity based on language. Today, some misguided Americans are working hard, raising funds and lobbying, to have English declared the official language of the United States, in the latest manifestation of our chronic ambivalence toward difference and "foreignness."

The Bilingual Edge

Beginning in colonial times, wealthy Americans sent their sons off to college for a classical education that included compulsory study of Greek and Latin. In addition, they've always thought it desirable to speak French, and many send their children to private schools where they learn French from the early grades.

These schools have in fact done a consistently better job than the public schools in developing bilingualism in their students, and the early start seems to be one of the reasons. Many of the countries where students have achieved bilingualism by the time they graduate from high school also begin second-language instruction in elementary school. In the St. Lambert school district in Montreal, Canada, English-speaking Canadians are im-

mersed in French in their early school years. This program has had a remarkable record of developing full bilingualism in all students.

Moreover, the St. Lambert students have outscored their monolingual English-speaking peers on both verbal and nonverbal measures of intelligence. Wallace E. Lambert, a McGill University researcher who has written several articles and a book about this experiment, reports that the program's students also demonstrate greater flexibility in thinking and a more diversified structure of intelligence.

These findings have been confirmed in research conducted in Singapore, Switzerland, and Israel. In the studies, bilingual children demonstrated greater cognitive flexibility, creativity, and divergent thought than monolingual children in control groups. What's more, according to the National Longitudinal Study of High School Seniors, even two years of foreign language study correlates with an 11-point increase in verbal SAT scores.

All the evidence demonstrates clearly that our nation needs people with foreign language abilities in almost every area of endeavor. The evidence just as clearly documents the cognitive, attitudinal, and achievement benefits of bilingualism. Yet our nation continues to underfund foreign language instruction.

Even less comprehensible are policies and attitudes that extinguish foreign languages in our students who bring them to our classrooms as their native languages. As the President's Commission on Foreign Languages and International Studies noted a decade ago:

> The United States is blessed with a largely untapped resource of talent in the form of racial and ethnic minorities who, by being brought into the mainstream of educational and employment opportunities in the areas of foreign languages and international studies, can be expected to make rapid, new, and valuable contributions to America's capacity to deal persuasively and effectively with the world outside its borders.

Help for Monolingual English-Speaking Students

Our schools are doing a great disservice to our English-speaking students by not preparing them adequately for life in the twenty-first century. Only about 15 percent of the world's people are native English-speakers, and on the American continents, there are approximately 100 million more Spanish speakers than English speakers. Portuguese, the native language of approximately 125 million Brazilians, runs a close third.

At the same time, the United States continues to be a magnet for people the world over. Our children in English as a Second Language and bilingual classes speak over 100 languages. Unfortunately, U.S. students' fear and distrust of difference sometimes prevents them from communicating with their own neighbors and classmates from ethnolinguistic backgrounds different from their own. Witness the recent incidents on college campuses (as in our cities) involving racial slurs and insults aimed at Hispanics and Asians.

We cannot continue to educate our children as though they were going to live their lives in white, English-speaking enclaves.

We cannot continue to educate our English-speaking children as though they were going to live out their lives in white, English-speaking enclaves. Their lives will be impoverished by their inability to understand that there are other world visions, other values, other ways of analyzing and solving problems, and other ways of working and playing. Students need to learn that we have much to offer the world, but that there is much we can learn from the rest of the world—indeed that we must learn if we are to continue to thrive in the years ahead.

Parents ought to be demanding foreign language instruction for their children in elementary school, just as they are demanding instruction in computer literacy. Countless Americans of non-Anglo heritage lament the fact that their parents never taught them their ancestral language. These parents ought to insist that their children have an opportunity to learn the languages of both their cultures.

It is time for our education leaders, our political leaders, and our parents to understand the limitations we are placing on our children by allowing them to remain monolingual and monocultural. It is time to enact the policies that will change this situation.

When the United States became alarmed about science and math training after Sputnik, we launched scholarship and loan programs aimed primarily at attracting people to enter math and science teaching. Scholarships, tuition waivers, and loan forgiveness have traditionally been used to attract people into fields where there are shortages. It is time we implemented such programs to develop good foreign language teachers.

Although there is a need for foreign language teachers, the number of position openings does not match the need—and few young people will want to prepare for foreign language teaching until such openings appear. We need to reinstitute foreign language requirements for college-bound students. We also need to provide incentives for non-college-bound students to learn foreign languages.

Given the increasing numbers of children from non-English language backgrounds in our public schools, we ought also to encourage, if not require, all prospective teachers to learn a second language. This will give them a greater understanding of their students' experience in learning a second language and some insights that may result in better teaching strategies. It will have the added benefit of providing bilingual role models to all students.

The best incentive, however, is to start children learning foreign languages as early as kindergarten or preschool. Children who begin learning languages early, before the age of about 11, can lose all trace of an ac-

cent; that's much more difficult after puberty. Early exposure to languages also results in positive attitudes toward foreign languages and cultures. By the time students reach high school, they have internalized all of our national attitudes toward foreign languages and their speakers. Moreover, children are not as concerned as adolescents about making mistakes and looking silly. Consequently, they're more likely to see learning languages as fun.

If we are to improve on our record of producing bilingual students, foreign language instruction also needs to take place on a daily basis. Our children are expected to take reading, language arts, and, later, English courses every day—but too often we expect them to learn a foreign language in one or two classes a week.

Foreign language instruction has improved tremendously in the last 20 years or so, with greater emphasis on communication and on practical uses of languages. Some of the most effective English as a Second Language programs are those in vocational education, where the students are learning the language as they learn to do a task or job. We can profitably experiment with teaching young children foreign languages while we are teaching them to do something else, such as conduct a science experiment or bake cookies.

Bilingualism for All

If we are to make a concerted effort to develop bilingualism, we must answer critical policy questions. Which languages should each school offer? How can we encourage students to study the more "difficult" languages that may be of strategic importance to the United States? Should we have a policy about maintaining the native languages of our immigrant children? How about the native languages of our American Indian children and native-born children whose parents do not speak English? Are there reasons beyond national interests of diplomacy and trade for developing and maintaining many languages in our midst? How much should we be willing to pay for providing students with the skills to enjoy great works of literature in the original language or for the sheer pleasure of traveling in a foreign country and functioning in the language?

We as a nation must understand that having many citizens who are bilingual, or multilingual, is beneficial to both individuals and our country. In *Megatrends*, John Naisbitt says that to be successful in the United States of the future, people will have to know English, Spanish, and computers. Perhaps we might add that for the United States to continue to be successful, *some* people will have to learn Japanese, Chinese, Russian, Korean, and Hindustani.

It's time we recognize these emerging realities—and act on that recognition. Delay brings increasing certainty that our nation will become impoverished—not only culturally and socially, but politically and economically—by its citizens' inability to communicate with 85 percent of the human race.

For Further Reading

The Best of Two Worlds: Bilingual-Bicultural Education in the U.S. Diego Castellanos. New Jersey Department of Education, 1983. This exhaustive account details practices in teaching and assimilating non-English speakers from colonial times to the present decade.

Bilingual Education: A Sourcebook. Alba N. Ambert and Sara E. Melendez. Teachers College Press, 1986. Eleven chapters treat bilingual education program models, legal issues, English as a second language, assessment, reading, bilingual special education, bilingual vocational education, program evaluation, parental involvement and participation, teachers and teacher training, and antibilingualism.

Bilingual Education of Children: The St. Lambert Experiment. W. E. Lambert and G. R. Tucker. Newbury House, 1972. This portrait of the French immersion program for English-speaking students in Montreal describes classes, parental involvement, and students' academic achievements.

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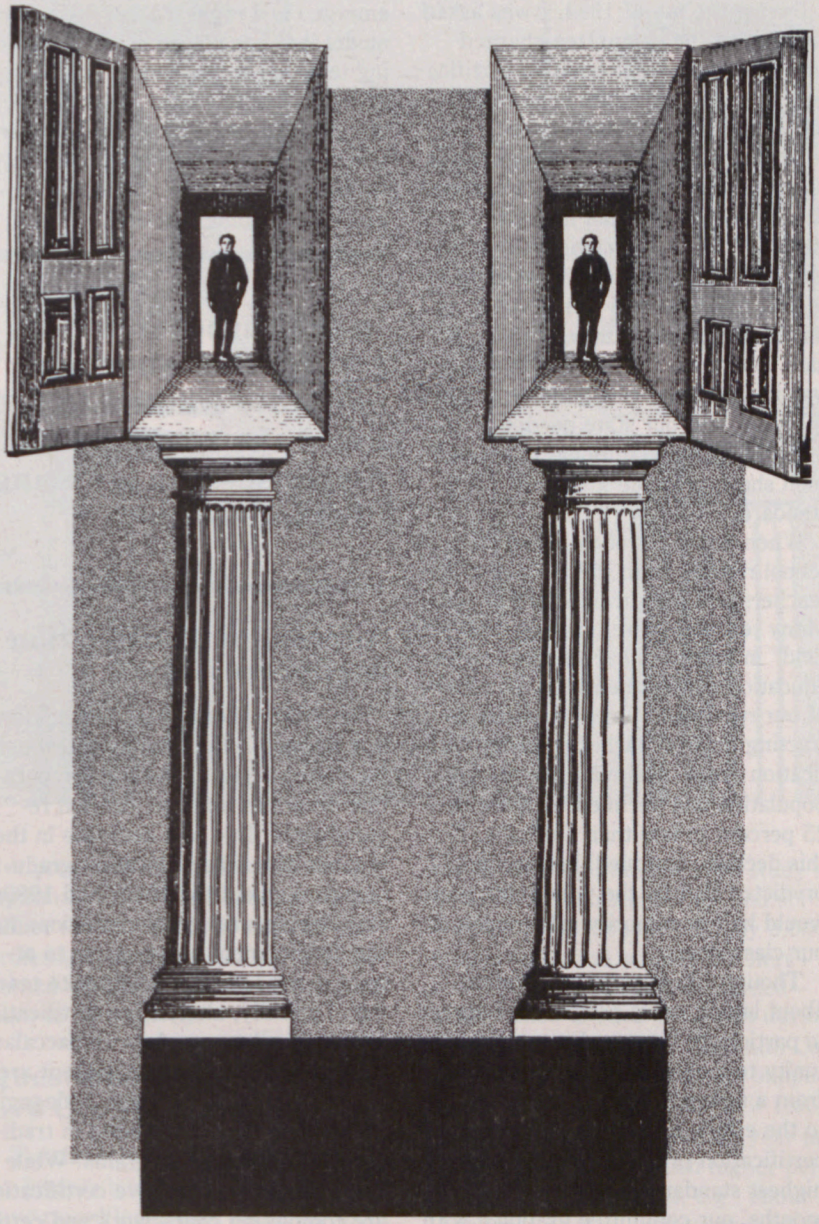
The Other Certification: More Benefits than Risks?

BY PATRICIA GRAHAM

Is alternative certification a way to use talented individuals to broaden our teaching force—or a way to staff classrooms without real teachers? Here's how one program actually works.



Can people with strong academic skills be trained to teach effectively through nontraditional teacher education programs? Is it time to allow people who have acquired relevant skills in other careers to share those skills by teaching in public school classrooms? Few issues are causing more widespread debate among education professionals as alternative certification programs develop across the country.

South Carolina has drawn on the expertise of public educators, higher education faculty, and the staff of the state educational agency to create a promising program that is reducing the state's shortage of teachers in certain critical subject areas while maintaining a high standard of quality.

During 1984-85, Patricia Graham was a member of the development committee for the South Carolina Critical Needs Certification Program. For two years she served as the program's director, and she currently teaches in the program. Graham has chaired the South Carolina Educator Recruitment Task Force and the policy board of the South Carolina Center for Teacher Recruitment. She is assistant dean for the School of Education at Winthrop College.

Four years ago, the citizens of South Carolina made a commitment to public education by agreeing to dedicate a new penny of sales tax to a comprehensive Education Improvement Act (EIA). This $250-million-a-year program, which Michael Kirst of Stanford University has described as the "Oscar winner" for state education reform, included a series of initiatives designed to set a high standard of teacher quality. The reform act raised teacher salaries substantially and mandated tougher criteria for undergraduate teacher education programs in the face of a predicted teacher shortage. It also called for the development of an alternative certification program for college graduates who had no previous

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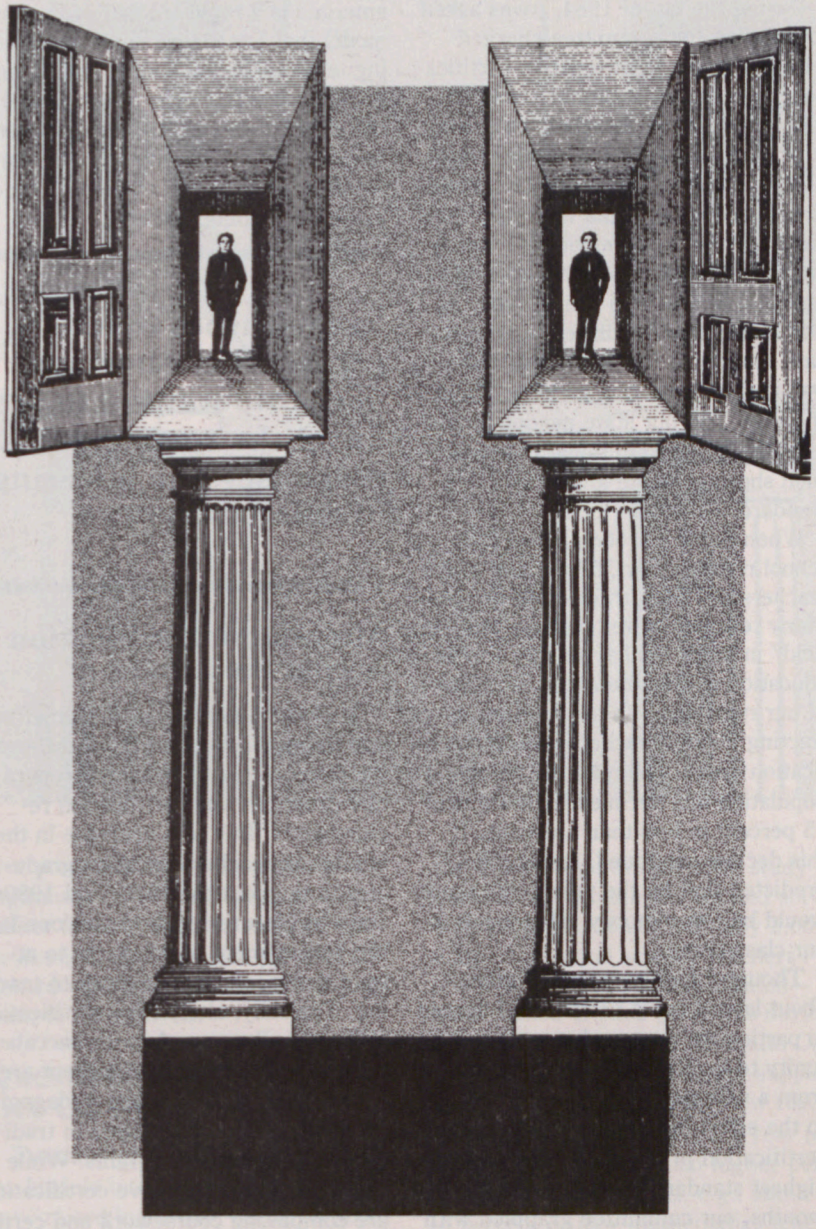

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pedagogical training. The alternative program was reserved for people with baccalaureate degrees in the areas the State Board of Education determined were in critically short supply.

During the fall of 1984, I was asked to serve on the committee charged with designing an alternative certification program. As a former public school teacher and current teacher education professor and administrator, I worried about opening up the profession to people who had not "paid their dues." Worse yet, I envisioned being murdered in my sleep by hordes of resentful teachers who were trained as I was in traditional four-year undergraduate programs. But South Carolina was in the throes of a genuine teacher shortage, and our state needed an alternative to the traditional response to such shortages—the lowering of standards.

When South Carolina began its school reform effort, 52 percent of our teachers had been trained out of state. Many teachers were teaching "out of field" in hard-to-fill areas like special education and mathematics, and many of our rural districts had trouble attracting quality teachers in most certification areas. The minority teacher population had declined by more than 25 percent in less than a decade. If this decline continued, researchers predicted that by the year 2000, there would be few minority role models in our classrooms.

Though I had grave reservations about lateral entry programs, I agreed to participate because I saw the opportunity to look at teacher education from a new perspective and to bring to the effort my belief that alternative certification programs should have the highest standards possible. For months, our committee grappled with the core question, "What should a person know about teaching before entering a classroom?" If we prepared individuals through a short and intensive preservice program, what knowledge was absolutely essential? How much did these novice teachers have to know about teaching strategies, classroom management, adolescent behavior, professionalism, and the school as a workplace, to enable them—and their vulnerable students—to succeed?

Those and other questions have been dealt with over the four years of the program's existence. What has emerged is a rapid teacher induction model that has placed some outstanding teachers in our middle and secondary school classrooms. What's more, our experience with this model offers some important insights into the ways we have traditionally trained and inducted beginning teachers.

In the throes of a real teacher shortage, our state wanted to avoid the traditional response—the lowering of standards.

Alternative Certification Across the Nation

Alternative certification is an effort to address teacher shortages through the restructuring of teacher preparation programs and certification requirements. Due to a decrease in the number of teacher education graduates throughout the 1970s and 1980s, state legislatures made provisions for the development of programs to attract new pools of candidates to teaching. Typically, alternative certification programs allow people with baccalaureate degrees in specific content areas to enter teaching with less pedagogical training than is required in traditional certification programs. While candidates for alternative certification are completing coursework and certification requirements, they teach, with supervision from the school district or the agency in charge of the program.

The number of states with alternative certification programs has increased rapidly in the wake of the school reform movement. In 1984, only eight states offered some form of alternative certification; by 1986, 23 states had such programs. Some models, such as ours in South Carolina, focus on training a small number of candidates for special content areas, particularly in secondary education. Others are training a larger and more diverse group for elementary, secondary, and special education.

Because alternative certification programs have developed only recently, we have limited data on their success in alleviating teacher shortages. We do know, however, that such programs will have lasting impact. Most of them may have been established as short-term solutions to a temporary supply problem, but their graduates will continue to teach long after the programs disappear. This makes the need for quality control as important for alternative certification programs as it is for traditional certification.

If rapid induction programs are to be credible to teachers in the profession, institutions of higher education, public schools, and the lay public, the same basic assumptions that underlie traditional undergraduate training must apply to today's alternative programs. These assumptions (as Steven Million and I formulated them in an ERIC paper, *Overcoming Teacher Shortages*) are three.

Assumption #1: There exists a research-based body of knowledge unique to teaching. Familiarity with this knowledge is necessary for all persons who aspire to be certified as teachers in the public schools. In this context, the mere possession of knowledge in a discipline is not in itself sufficient for effective teaching.

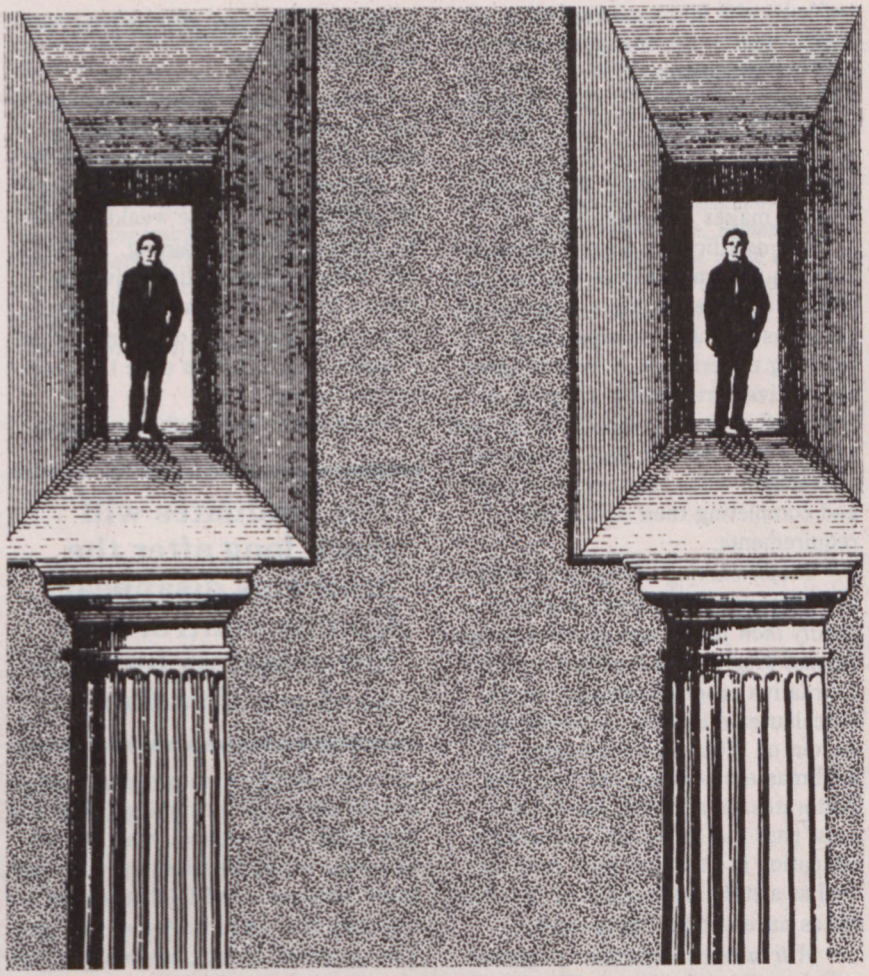
More than 20 years of research on teachers and teaching have given the profession a basis for making decisions about what is required for effective instruction. The teaching candidate should evidence knowledge of and practice in such areas as teaching strategies, classroom management, course planning, and student evaluation before entering teaching.

Assumption #2: Critical teacher shortages represent a threat to public education—a threat that is exacerbated by the increasing number of people teaching in areas for which they are not qualified. An alternative program that requires proof of content knowledge, instruction in the science of

teaching, and supervised classroom experience is an eminently more desirable alternative.

We are in the throes of a teacher shortage that is projected to continue into the 1990s. Between 1970 and 1980, the proportion of college students majoring in education declined by nearly one-half, from 21 percent to 11.6 percent. According to the National Center for Education Statistics (1987), newly trained teachers may constitute less than two-thirds of the number needed by 1992. What's more, the academic qualifications of 18- to 20-year-olds entering teacher training are lower than those of students entering business, liberal arts, health and medicine, engineering, and other professions.

In addition to the unstable supply of college trainees, such factors as early retirement, mid-career changes, and broader opportunities for women and minorities have affected the teacher pool. Some states have responded by allowing certified teachers to teach "out of field" or have issued emergency certificates to people without teaching credentials. Where personnel have been unavailable, overcrowded classes and the reduction of course offerings have resulted.



In a time when school quality is a crucial factor in our country's economic success or failure, we have to be more creative than we have been in the past. We cannot depend entirely on traditional undergraduate teacher education programs to meet the need for well-qualified teachers. Therefore, people with strong academic preparation in a discipline and a genuine interest in teaching should have the opportunity to become certified through a supervised program that contains a modified student teaching experience.

Assumption #3: Colleges of education, public schools, and state departments of education must share responsibility for the development and success of alternative programs.

No teacher education program that becomes the exclusive domain of a single agency can hope to provide the breadth of experience and knowledge needed by teacher trainees. If alternative programs are to be considered a legitimate type of education program rather than a backdoor entry to the profession, all interested parties concerned with training and certification have to be involved.

Questions About Alternative Certification

Teachers and other professional and lay leaders interested in our schools have raised legitimate concerns about alternative programs. Critics have questioned their impact on the teacher supply and the classroom. They have argued, for instance:

- *Alternative certification programs will put undergraduate teacher education programs out of business.* Actually, alternative programs train a small number of teachers compared to undergraduate programs. For example, the Rand Corporation's 1988 study of nontraditional mathematics and science programs found that only 2,000 mathematics and science teachers—about 10 percent of those needed—were trained in such programs during the 1986-87 school year. In South Carolina, the alternative program supplies only about 2 percent of the new teachers certified in our state each year (although it supplies a much higher percentage in certain areas, e.g., about 15 percent of new mathematics teachers.) The demand for new teachers is far too great for these programs to have a large quantitative effect on the profession. In addition, heavy reliance on special funding and each state's demand for teachers will determine the alternative programs' longevity.

- *By putting more uncertified teachers in our classrooms, we are harming students.* Students can be harmed by

teachers who lack teaching skills, whose content knowledge is poor, or who are insensitive. When critics use the word "uncertified," they frequently mean "unqualified," "ineffective," or "untrained." But we have no evidence that the regular certification process makes a teacher effective.

What certification should guarantee is that a person has been exposed to a body of knowledge and a program of study, as well as to a supervised teaching experience. A well-designed alternative certification program includes all of these components, as well as continued support and assessment of teachers while they are teaching and completing their certification requirements.

• *People electing alternative certification programs are of lesser academic quality than people who go through traditional programs.* All people entering alternative programs should have a baccalaureate degree. In South Carolina, out of 170 active candidates, 46 hold masters degrees and five have doctorates. In addition, candidates must pass the National Teachers Examination in their specialty area, as well as a state basic skills exam. Other states have similar requirements.

• *Alternative certification programs will depend primarily on military and business retirees who may not have the experience or temperament to work effectively in public schools.* Initially, it was believed that alternative certification programs would attract many recent retirees from the military and business, but experience has proven otherwise. The majority of candidates tend to be either mid-career changers or recent college graduates. When I have asked alternative certification holders why they decided to become teachers, I've found that their reasons for entering teaching are similar to the reasons given by traditionally trained teachers: a strong desire to work with young people, a love for their content area, and a desire to make a difference in young people's lives. Few have a Pollyannaish outlook on teaching. They understand that teaching is challenging, sometimes grueling work, where the emotional rewards often outweigh the monetary ones.

Lessons from Alternative Certification

I have learned a great deal about how we train and induct beginning teachers through my involvement in an alternative certification program. Induction is one of the weakest links we have in teacher training. I believe that well-developed alternative programs, though they provide limited training up front, can do a superior job of supporting teachers once they enter the profession.

Teachers in the South Carolina alternative certification program receive limited pedagogical training before the beginning of the school year, but our first-year support system provides far more assistance and feedback than is typically offered to first-year teachers. The program, in fact, has many of the characteristics of five-year undergraduate programs—for example, people engage in pedagogical training only after they have proven their competence in the subject matter.

The graduates will teach long after the programs disappear. Quality control is as important as for standard certification.

The South Carolina alternative certification program is supervised by the state Department of Education and directed from a college campus. College professors and public school faculty work to provide assistance and assessment to new teachers. Field coordinators visit the new teachers in their schools, observe and evaluate their lessons, meet with mentors and administrators, and serve as part of the support system. A teacher mentor is selected for each candidate on the basis of the existing criteria for effective mentors in business and education. Monthly seminars provide candidates with opportunities for problem solving, training, comradery, and support from colleagues in the program.

If the college determines that a candidate has successfully completed the first year of teaching, that candidate may continue for a second year if the school district offers a teaching contract. The candidates receive additional summer training before school begins; assistance, evaluation, and support continue into the second year. During the second and third years of the program, candidates must enroll in three specific graduate courses. With completion of these courses and three years' successful teaching experience, candidates receive full certification.

The program outlined above is not easy, nor is it a back door to certification. It is a nontraditional teacher education program that leads to certification. It requires competence in a discipline, pedagogical training, and several years of supervision. New teachers receive support in the school, which is where teacher decision making takes place and where in traditional programs support is so often lacking.

Though many alternative programs will probably disappear as we attract more people to teaching through traditional routes, let's not throw out the baby with the bath water. There will always be competent late entrants with relevant experiences in other careers who want the opportunity to teach and would be great assets to the profession. Programs of integrity should be developed to assist them in this endeavor.

At the same time, traditional programs need to develop better support mechanisms for beginning teachers rather than rely on "survival of the fittest" or "baptism by fire" techniques of induction. If we truly want to attract bright, competent professionals to teaching, we have to offer support and guidance during those critical beginning years.

Teaching is a difficult and challenging profession that deserves to attract and retain the best people. A recent alternative certification program graduate and former member of the Peace Corps said he had found in teaching a career that captured the Corps slogan, "the toughest job you'll ever love."

It's a great slogan. I wish we'd thought of it first.

For Further Reading

A Call for Change in Teacher Education. National Commission for Excellence in Teacher Education, Carnegie Commission for the Advancement of Teaching, 1985. This response to *A Nation at Risk* calls for major changes in teacher education and supports the development of alternative certification programs.

The Evolution of Teacher Policy. L. Darling-Hammond and B. Berry. Rand Corporation, March 1988. The authors sum up recent trends in teacher certification and credentialing, including alternative certification programs.

Recruiting Mathematics and Science Teachers Through Nontraditional Programs: A Survey. L. Darling-Hammond, B. Mittman, and N. Carey. Rand Corporation, May 1988. Here's a survey of 64 nontraditional programs for training mathematics and science teachers, with recommendations for improving alternative certification programs.

Teacher Crisis: Myth or Reality. Emily Feistritzer. National Center for Education Information, 1986. This controversial report contains data on who is entering teaching, certification requirements, and the status of alternative certification and teacher shortages, state-by-state.

Teacher Supply and Quality in the South: A Search for Strategies and Solutions. Southern Education Foundation, September 1986. These presentations made at an invitational conference focus on the teacher supply/demand issue, particularly as it relates to minorities.

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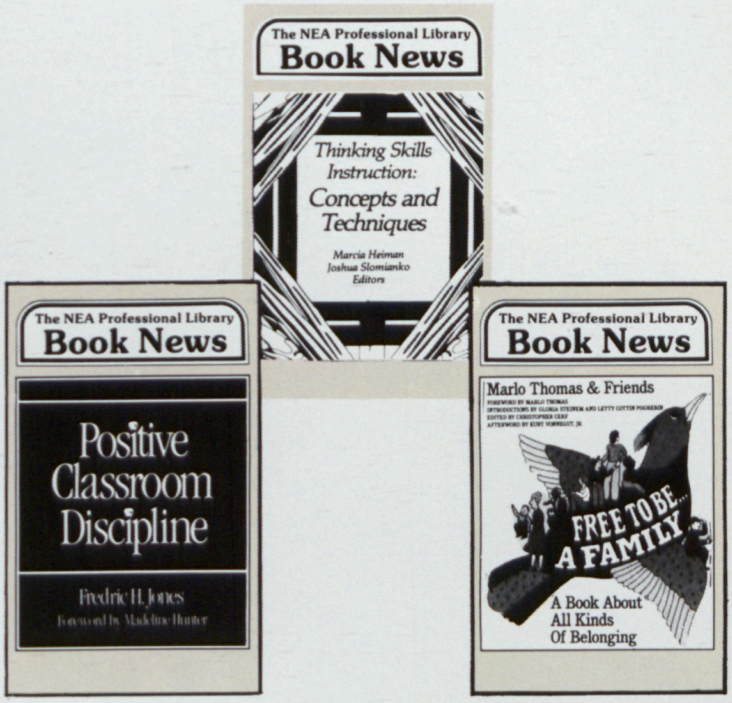

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